Journal of Geophysical Research

U. of ILL. LIBRARY

APR 4 1974

CHICAGO CIRCLE

PUBLISHED BY

THE AMERICAN GEOPHYSICAL UNION



Journal of Geophysical Research

INDEX TO VOLUME 78

AUTHOR	INDEX	 . 8893
SUBJECT	INDEX	8908

MAJOR HEADINGS OF THE SUBJECT INDEX

	Pag
Solar Physics and Astrophysics	890
Planetology	890
Particles and Fields in Interplanetary Space	891
Particles and Fields in Earth's Magnetosphere	891
Particles and Fields in the Ionosphere	892
Aeronomy	
Meteorology	893
Hydrology	893
Oceanography	894
Geomagnetism and Paleomagnetism	894
Geodesy and Gravity	894
	894
	894
/olcanology	894
/olcanology	894
ectonophysics	895
Seismology	895
Information Related to Geologic Time	895
Information Related to Geographic Regions	895
General or Miscellaneous	895
Corrections	895

Copyright © 1974 by the
American Geophysical Union

AUTHOR INDEX, VOLUME 78

Notes:

- * designates the first of two or more authors

 ** designates not the first author

 (L) designates letter

 (B) designates brief report

s, J., High-latitude F layer irregularities	31 7441		Anderson, O. L., ** Granular materials under	29 6911
H. A., Electron precipitation into geo-			compaction	22 4756
M. A., Electron precipitation into st	25 5830			16 3020
agnetic anomaly (L)	5 866			
ena, A. M., ** Strike slip faulting bach, J. D., * Strike slip faulting	5 866		Angreji, P. D., ** Permitted oxygen line clopion	7 1174
bach, J. D., * Strike Silp lautting	20 4313		nightglow a situation of O I airglow (B)	13 2315
C. H., Jr., ** Mariner 9 mission E. W., ** Tektite ablation G. J., ** Barium cloud electric fields On, D., * NASA-MPE barium cloud	17 3491		nightglow Angreji, P. D., Conjugate excitation of O I airglow (B)	31 7174
E. W., ** Tektite ablation	28 6634		Antonucci, E., * Diurnal waves underground Antonucci, E., * Diurnal radioactivity (B)	27 6377
G. J., ** Barium Cloud electric richas			Ardouin, B., ** Aerosol radioactivity (B)	
on, D., * NASA-MPE Darium Cloud	25 5769		Armstrong, J. C., Field-aligned culture	28 6802
xperiment, 6 all, J. M., ** Fe ³⁺ /Fe ²⁺ ratios in			auroral region (L)	16 2715
all, J. M., ** Fest/re- ractos in	17 3301		Armstrong, T. W., * Neutron Flux spectra	26 5847
itanomagnetites	1 288		Arnold, J. R., ** Y Ray emission spectra	13 2187
malia, H. S., Coupling function at of Mile dopon (2 375		Arnoldy, R. L., * Auroral electrons less than a sector	34 8180
thanomagnetites alia, H. S., Coupling function at 60 MWE depth (L) 5, T. J., ** Iron-silicate garnet T. J., ** Phase change in orthoclase T. J., ** Spectra of shocked ruby	8 1274		auroral region (L) Armstrong, T. W., * Neutron flux spectra Arnold, J. R., ** \(\gamma\) Ray emission spectra Arnoldy, R. L., * Auroral electrons less than 1 kev Arthur, C. W., * Micropulsations in the morning sector Arthur, D. W. G., ** Mariner 9 mission Artyushkov, E. V., Crustal thickness inhomogeneities Artyushkov, E. V., Crustal thickness inhomogeneities	20 4355
ns, T. J., * Phase change in orthocrase	26 5942		Arthur, D. W. G., ** Mariner 9 mission	32 7675
s, T. J., * Spectra of shocked ruby	26 5954		Artyushkov, E. V., Crustal thickness innomega-	30 7092
15, T. J., ** Quartz to stishovite	32 7596		Artyushkov, E. V., ar stress on Arctic ice Arya, S. P. S., Air stress on Arctic ice	14 2517
			Arya, S. P. S., Air Stress on Alectronic Aganuma, T., ** Structure of Southwest Japan margin Asanuma, T., ** East China Sea-West Philippine Sea	
1, A. C., * Metallic ions in the equatorial	4 734		Asanuma, T., ** East Unina Sea-Nest Initipped	14 2526
	7 1229		margin	17 3437
n, A. C., * NO ₂ ⁺ in lower ionosphere (L) lo, J. M., * Mariner 9 mission lo, J. M., * * * * * * * * * * * * * * * * * * *	20 4279		Asanuma, T., ** Sulu and Celebes seas Asanuma, T., ** Refraction measurements northeast	
lo, J. M., * Mariner 9 mission			Asanuma, T., ** Refraction measurements	35 8653
ofu, SI., ** Cross correlation between AE	4 617		of New Ireland	1 109
and IMF Bz			Asbridge, J. R., ** Plasma Sheet variation	13 2017
and IMF B_Z ofu, SI., ** Auroral oval and traveling	16 3020		of New Ireland Asbridge, J. R., ** Plasma sheet variations Asbridge, J. R., ** Double ion streams Asbridge, J. R., ** Solar wind electrons Asbridge, J. R., ** ** Magnetotail plasma flow	19 3697
	16 3027		ASDridge, J. K.,	25 5463
ofu, SI., * Red auroras (B)	19 3857		Asbridge, J. R., ** Magnetotal proton anisotropy	28 6451
ofu, SI., ** Polar auroral radar ofu, SI., ** Structured Pc l after intense			Asbridge, J. R., ** Magnetotall proton anisotropy Asbridge, J. R., ** Solar wind proton anisotropy Asbridge, J. R., ** Magnetotail and boundary layer	
sofu, SI., ** Structured PC 1 after Intense	25 5524		Asbridge, J. R., " Magnetotall and sound	31 7257
			plasmas t Florents in tektites	8 1245
sofu, SI., ** Anisotropies during Forbush	28 6409		Askouri, N. A., Elements in tokers by Holmes et al. (L)	17 3515
			Asten, N. W., Comments on paper by J. P. Heppner (L) 19 4001
decreases sofu, SI., ** Auroras at South Pole and from	28 6579		plasmas Askouri, N. A., * Elements in tektites Asten, N. W., * Comments on paper by Holmes et al. (L) Atkinson, G., ** Comments on paper by J. P. Heppner (L) Atkinson, G., Field-aligned and polarization currents	
			Atkinson, G., Field-aligned and polarisa	31 /549
isis l	28 6607		(L) Air hubble solution	6 962
			Atkinson, L. P., Air bubble solution	35 8665
sofu, SI.,* Magnetotail and boundary layer	31 7257		Atvairson, L. T., Gorda rise Aubry, M. P., ** Substorm studies, 4 Aubry, M. P., ** Substorm studies, 5 Aubry, M. P., ** Substorm studies, 9 Axford, W. I., ** Solar modulation, 3	16 3068
plasmas	31 7286		Aubry, M. P., ** Substorm studies, 5	16 3079
asofu, SI., ** Cleft motion observed by 1315	31 7490		Aubry, M. P., Substorm studies, 9	16 3131
plasmas asofu, SI., ** Cleft motion observed by isis 1 asofu, SI., * Auroral substorms (B)	8 1319)	Aubry, M. P., ** Solar modulation, 3	7 995
	8 1334		Axford, W. 1., ** Solal modules Axon, H. J., ** Canyon Diablo spheroids	2 363
	11 1818	3	Axon, H. J., " Canyon Blades of	
	es 1 240)		
inrimisi, J., ** Equatorial electrojos	8 1319			
ba, J., ** Solid earth tide caraz, E. C., ** Atmospheric refractive index dridge, T. V., ** Recordings of lightning flashes (dridge, T. V., ** Recordings of lightning flashes (127 6224	1		
caraz, E. C., ** Atmospheric flashes (BY 21 451!	5		
dridge, T. V., ** Recordings of lighthing fluctity	26 589	3	Baader, HR., * Solar wind instabilities (B)	28 6737
len, J. C., ** Water fugacity and oxygen lugacity	7 121	9	Baader, HR., * Solar wind instabilities Ba Cuong, N., * Aerosol radioactivity (B)	27 6377
ien. K. H., * Solar EUV absorption (L)	34 840	9	Ba Cuong, N., Acrosor radio	2 393
dridge, T. V., ** Recordings of lighthing lissons len, J. C., ** Water fugacity and oxygen fugacity len, K. H., * Solar EUV absorption (L) lum, F. R., ** Comments on paper by Pyle (L)	11 176		Bahar, E., * Line source Bahnsen, A., ** Auroral particles and electric	
varez, R., Rock resistivity	s 29 683	3		19 3976
varez, R., Rock resistivity varez, R., Lunar simulator and dielectric propertie	35 869		fields (L)	25 5597
varez, R., Lunar simulator and dielectric parameters, R., Lunar simulator and paleomagnetism erigian, C., ** Terceira Island paleomagnetism straighton S. ** Flectron precipitation into			Bailey, G. J., * Plasma temperature of minerals Bailey, S., ** Compressibility of minerals Bailey, S., ** CO CH ₀ , and H ₂ in the southern	29 6893
panthakrishnan, S., ** Electron precipitation into	25 583	0	Bailey, S., ** Compressibility of minorate Bainbridge, A. E., ** CO, CH ₄ , and H ₂ in the southern	
geomagnetic anomaly (L)	28 649		Rainhridge, A. E.,	15 2691
	17 322		ocean (B)	36 8859
nderson, D. L., Lunar interior composition	28 650		Baker, D. J., * Ground observations of all and a servations of all and a servations of a servation of a serv	30 7023
oderson D. L. ** Surveyor 3 analysis	29 700		ocean (B) Baker, D. J., * Ground observations of airglow (B) Baker, K. D., ** OH in auroral zone Balasubrahmanyan, V. K., ** Cosmic ray electrons	
mierson D. L. ** Low-spin Fe2+ in mantle			Balasurannanyan	31 716
nderson, D. L., Lunar interior composition and and and and and and and and and an	27 635	9	above 10 Gev	32 777
storm days (B)	30 709		Ball, M. M., ** Fracture Zones	2 47
storm days (B) nderson, J. A., ** Trace gas concentrations nderson, H. R., ** Birkeland currents and particle			above 10 GeV Ball, M. M., ** Fracture zones Ballino, G., * Analysis of earth's topography Balmino, G., ** Infrared remote sensing	23 498
anderson H R. ** Birkeland currents and particle	4 64	10	Balsamo, S. R., ** Intraled Tomoto Superial	5,000
fluxes (L)	19 395		Balmino, G., * Analysis of earth's topes-ry Balsamo, S. R., ** Infrared remote sensing Balsley, B. B., ** Instabilities in equatorial	1 22
n Cosmic ray 10012ation (b)	23 490		electrojet	
anderson, O. L., Power law for Birch's law				8893
Marie Contract of the Contract				

		1 (0)	Bhattacharya, S. K., * Cosmic ray tracks metorites (L)
Balsley, B. B., * Radar Doppler spectra (B) Balsley, B. B., ** Diffuse radar auroras (L)		0 1681 2 4797	Bigg, E. K., * Reply (L)
Balsley, B. B., * Observations of electrojet	22	4/3/	Biot. M. A., Rheology of porous solids
turbulence	31	7471	Birch, F., ** Energetics of cove formation Birks, J., ** Bomb-produced stratospheric NO and O ₃
Balsley, B. B., ** Auroral currents, irregularities,		The same of	Birks, J., ** Bomb-produced stratospheric NO and O3
and luminosity		8193	Birmingham, T. J., * Binary index criterion (B) Biscaye, P. E., ** Comments on paper by Ichiye et al.
Bame, S. J., ** Plasma sheet variations		109	(L)
Bame, S. J., ** Solar wind proton temperatures Bame, S. J., ** Double ion streams		2017	Bittencourt, J., ** Permitted oxygen line tropical
Bame, S. J., ** Solar wind electrons		3697	nightglow
Bame, S. J., ** Magnetotail plasma flow		5463	Blake, J. B., ** Ring current protons
Bame, S. J., ** Solar wind proton anisotropy		6451	Blake, J. B., * Inner zone alpha particles
Bame, S. J., ** Dynamics and solar wind parameters Bame, S. J., ** Magnetotail and boundary layer plasmas	28	6469	Blake, J. B., Origin of trapped radiation (L) Blakely, R. J., * Detecting short magnetic polarity
Banke, E. G., ** Evaporation and heat flux over sea ice	18	7257	intervals
Banke, E. G., * Wind stress on Arctic sea ice		7871	Blamont, J. E., ** Upper geocorona
Banks, P. M., Thermal plasma flows (L)		3186	Blamont, J. E., ** Solar Lyman a and hydrogen exobase
Banks, P. M., * Electric field in the auroral zone		6607	Blamont, J. E., ** Equatorial balmer alpha emissions
Banks, P. M., ** Neutral winds in auroral E region Barazangi, M., ** Travel times in the Fiji-New Hebrides		8235	Blamont, J. E., ** Equatorial airglow Blamont, J. E., ** Low-latitude 6300-A nightglow
region region		3431	Blasius, K. R., ** Mariner 9 mission
Barazangi, M., ** Seismic velocity anomalies in New	'	0101	Blasius, K. R., Mariner 9 mission
Hebrides arc	29	6998	Blau, P. J., * Canyon Diablo spheroids
Barberi, F., * Tyrrhenian Sea volcanism		5221	Bleahu, M. D., * Neogene Carpathian arc
Barcilon, A. I., * Transverse bars		2656	Bloomberg, H. W., * Particle acceleration (B) Boccaletti, M., ** Neogene Carpathian arc
Barish, F. D., * NASA-MPE barium cloud experiment, 8 Barish, J., ** Neutron flux spectra		5795 2715	Bodvarsson, G., Constrained potential fields
Barkstrom, B. R., Reflectance from atmosphere (B)		6370	Boessenkool, A., ** Permian naleomagnetism
Barnett, J. J., ** Satellite-measured radiances		483	Boettcher, A. L., * Water pugacity and oxygen fugacity
Baron, M., ** Multilateral temperature comparisons	1		Bogard, D. D., ** Keyes chondrite
Baron, M. J., ** Trough ion temperatures and drift speed (L)			Bogott, F. H., ** Electric field and electrons
		1723	Bogott, F. H., * Energetic proton injection Bogott, F. H., * Particle decreases at the synchronous
Baron, M. J., * Auroral zone ionosphere eclipse effects Barrington, R. E., ** Excitation of ion resonances		8167	orbit
Barsch, G. R. ** Pressure dependence of spinel		2418	Bohn, J., ** Crustal structure under lasa
Barth, C. A., ** Mariner 9 mission		4279	Boksenberg, A., * Ultraviolet equatorial dayglow Boller, B. R., * Stability of magnetopause
Barth, C. A., ** Mariner 9 UV experiment		4547	Boller, B. R., * Stability of magnetopause
Bass, J. N., ** Jupiter dayglow		2812	Bonini, W. E., * Strait of Gibraltar Boogaard, J. F., ** Wave spectra
Bassett, W. A., ** SrO at high pressure Bassin, N. J., ** Correction (L)		8470 3631	Booker, J. R., ** Pore pressure changes
Bassinger, B. G., ** Marine geophysical study		432	Borcherdt, R. D., Viscoelastic waves
Bates, H. F., * Aurora and ionospheric trough	4		Born, G. H., ** Mariner 9 mission
Bates, H. F., * Trough ion temperatures and drift			Bornatici, M., * Scattering and decay of FM waves (P)
Speed (L)		1723	Boschi, E., Body force equivalents
Bates, H. F., * Polar auroral radar Batson, R. M., Mariner 9 mission		3857	Boschi, E., Source mechanism
Bauer, P., ** Multilateral temperature comparisons		4424 197	Boschi, E., Earth model with initial static stress
Bauer, S. J., * Martian ionosphere (L)		3169	Field Bosqued I M ** Assessed 2
Baurer, T., ** Carbon-hydrogen chemistry		5306	Bosqued, J. M., ** Auroral electron precipitation Bossler, J., * Geodetic nets
Bavassano, B.,* Interplanetary shock waves Bavassano, B., ** Occurrence rate of discontinuities		4535	Bossler, J. D., Generalized inverse solutions in
Baxter, D., * Plasma oscillations at 6.6 R_E (L)		8011	geodesy
beasley, W. H., * Martian eddy diffusion coefficients		6798 5425	Boucher, G., Underground nuclear explosions
beck, J. N., ** Radiostrontium in rain		1419	Bowen, V. T., * Bomb radio nuclides
Beck, J. N., ** Chinese nuclear tests		7039	Bowin, C., Origin of ninety east ridge Bowyer, S., ** He II 304-A night glow
Beck, M. E., ** Paleomagnetism in the Central Cascades Beckerle, J. C., * Rossby waves		2601	Bowyer, S., ** He II 302-A and He I 584-A dayglow
Behannon, K. W., ** Reply (I)		6316	bowyer, S., ** Polarization of He I and He II radiation
Behnke, R. A. * F region ion transport		4809 8222	boyd, J. S., " NASA-MPE harium cloud experiment 2
Beicher, J. W., ** Abrupt changes in the solar wind		3653	Brace, L. H., ** Multilateral temperature comparisons Brace, L. H., ** 6300-A emission near Plasmapause (B)
beicher, J. W., Spacecraft magnetic fields			
Belmont, A. D., * Zonal wind (B) Belon, A. E., ** Aurora and ionospheric trough		6480	Brace, W. F. ** Conductivity of
and ionospheric trough		6373	Bradford, C. M., ** Vertical distribution of CO
Belon, A. E., ** Trough ion temperatures and deich			Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab
speed (L)	4	6373 648	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion
speed (L)	4	6373	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W. Invession of calculation
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment	10	6373 648 1723	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holger
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P * Geomagnetic field	4 10 34 5	6373 648 1723 8276 798	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L)
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J. ** Micropulations	4 10 34 5 10	6373 648 1723 8276 798 1603	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Brailey, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No vibrational terminates.
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic partroyraphic sections.	4 10 34 5 10 32	6373 648 1723 8276 798 1603 7623	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No vibrational temperature (L) Breig, E. L., Solar flux variations
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measures.	4 10 34 5 10 32 35	6373 648 1723 8276 798 1603 7623 8463	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No vibrational temperature (L) Breig, E. L., * Solar flux variations (B) Brekke, A. * Neutral winds in auropata.
speed (L) Belrose, J. S., ** Trough ion temperatures and drift speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., Simultaneous electron temperature	4 10 34 5 10 32 35	6373 648 1723 8276 798 1603 7623	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breig, E. L., * No solutional temperature (L) Breig, E. L., * Neutral winds in auroral E region Brence, W. A., * NASAMPE having classes
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., Simultaneous electron temperature comparison (B)	4 10 34 5 10 32 35 22	6373 648 1723 8276 798 1603 7623 8463	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breig, E. L., Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brence, W. A., * NASA-MPE barium cloud experiment, 1
speed (L) Belrose, J. S., ** Trough ion temperatures and drift speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., Simultaneous electron temperature comparison (B) Benson, R. F., * Correction	4 10 34 5 10 32 35 22 28 34	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breig, E. L., * Nolar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brence, W. A., * NASA-MPE barium cloud experiment, 1 Brennan, M. E., ** N ₂ vibrational temperature (L) Brennenan, M. E., ** N ₂ vibrational temperature (L)
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., Simultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (P)	4 10 34 5 10 32 35 22 28 34 14	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2498	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breig, E. L., Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brennan, M. E., ** N ₂ vibrational temperature (L) Brennan, M. E., ** N ₂ vibrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L)
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Smultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., ** Current descriptions are assumed to the service of the serv	4 10 34 5 10 32 35 22 28 34 14 21	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2498 4520	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breeding, E. L., Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brennee, W. A., * NASA-MPE barium cloud experiment, 1 Brennan, M. E., ** N ₂ vibrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and marricle stability
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., Simultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Fieldaaligment apartial.	4 10 34 5 10 32 35 22 28 34 14 21 13	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2498 4520 2201	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No privational temperature (L) Breig, E. L., Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brence, W. A., * NASA-MPE barium cloud experiment, 1 Brennan, M. E., ** No privational temperature (L) Brennan, M. E., ** No privational temperature (L) Brennan, M. E., ** No privational temperature (L) Brennan, M. E., ** Way and privational temperature (L) Brice, N., ** Wave amplification and particle stability (B)
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Simultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cold plages	4 10 34 5 10 32 35 22 28 34 14 21 13 10	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2498 4520	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breeding, E. L., Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brennen, M. E., ** N ₂ vibrational temperature (L) Brennan, M. E., ** Vubrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 respectively.
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., Simultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cold plasma and whistler instability Berry, A. L., Thermoluminescence of Hawaiian basalt	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31 29	6373 648 1723 8276 798 1603 7623 8445 4702 6755 8412 2498 4520 2201 1615	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No provided in the special state of the state of
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., Simultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., *** Cold plasma and whistler instability Berry, A. L., Thermoluminescence of Hawaiian basalt Bertaux, J. L., * Upper geocorona Beske, S. J., Jr., * Paleomagnetism in the Confuel	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 22498 4520 2201 1615 7372	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breig, E. L., Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brennan, M. E., ** N ₂ vibrational temperature (L) Brennancke, J., ** N ₂ vibrational temperature (L) Brennecke, J., ** Notar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 moon samples Briggs, G. A., ** Mariner 9 mission Brinca, A. L., Whistler modulational instability Broadfoot, A. L., ** Comment on present the Comment of the
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Sumultaneous electron temperature Comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cold plasma and whistler instability Bertaux, J. L., * Upper geocorona Beske, S. J., Jr., * Paleomagnetism in the Central Cascades	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31 29 1	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2498 4520 2201 1615 7372 6863 80	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No are flux variations (B) Breig, E. L., * Solar flux variations (B) Breeke, A., * Neutral winds in auroral E region Brence, W. A., * NASA-MPE barium cloud experiment, 1 Brennan, M. E., ** No aritional temperature (L) Brennan, M. E., ** No aritional temperature (L) Brennan, M. E., ** No aritional temperature (L) Brennan, M. E., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 moon samples Briggs, G. A., ** Mariner 9 mission Brinca, A. L., Whistler modulational instability Broadfoot, A. L., ** Comment on paper by Cartwright
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Correction Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cod plasma and whistler instability Berry, A. L., Thermoluminescence of Hawaiian basalt Bertaux, J. L., * Upper geocorona Beske, S. J., Jr., * Paleomagnetism in the Central Cascades Bewick, A., * Low-energy solar areters	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31 29 1	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2498 4520 2201 1615 7372 6863 80	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breig, E. L., * Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brenne, W. A., * NASA-MPF barium cloud experiment, 1 Brennan, M. E., ** N ₂ vibrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 moon samples Briggs, G. A., ** Mariner 9 mission Brinca, A. L., Whistler modulational instability Broadfoot, A. L., ** Comment on paper by Cartwright et al. (L) Broecker, W. S. ** 2280
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Smultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cold plasma and whistler instability Berty, A. L., Thermoluminescence of Hawaiian basalt Bertaux, J. L., * Upper geocorona Beske, S. J., Jr., * Paleomagnetism in the Central Cascades Bewick, A., * Low-energy solar protons Bezdek, H. F. High-frequences	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31 29 1	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2498 4520 2201 1615 7372 6863 80	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No vibrational temperature (L) Breig, E. L., * Solar filux variations (B) Brekke, A., * Neutral winds in auroral E region Brence, W. A., * NASA-MPE barium cloud experiment, 1 Brennan, M. E., ** No vibrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 moon samples Briggs, G. A., ** Mariner 9 mission Brinca, A. L., Whistler modulational instability Broadfoot, A. L., ** Comment on paper by Cartwright et al. (L) Broecker, W. S., ** 228Ra in the world ocean
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Simultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cold plasma and whistler instability Berry, A. L., Thermoluminescence of Hawaiian basalt Bertaux, J. L., * Upper geocorona Beske, S. J., Jr., * Paleomagnetism in the Central Cascades Bewick, A., * Low-energy solar protons Bezdek, H. F., High-frequency sound reflection Bezrukikh, V. V., ** Solar plasma observations from Mars-2 and Mars-3 (II)	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31 29 1	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2291 1615 772 6863 80 2601 597 3390	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Show failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breig, E. L., * Solar flux variations (B) Breke, A., * Neutral winds in auroral E region Brenne, W. A., * NASA-MPF barium cloud experiment, 1 Brennan, M. E., ** N ₂ vibrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 moon samples Briggs, G. A., ** Mariner 9 mission Brinca, A. L., Whistler modulational instability Broadfoot, A. L., ** Comment on paper by Cartwright et al. (L) Broecker, W. S., ** 228Ra in the world ocean Brolley, J. E., * Photoabsorption cross sections Brooks, J. M., ** Verviscal discounts.
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Simultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cold plasma and whistler instability Berry, A. L., Thermoluminescence of Hawaiian basalt Bertaux, J. L., * Upper geocorona Beske, S. J., Jr., * Paleomagnetism in the Central Cascades Bewick, A., * Low-energy solar protons Bezdek, H. F., High-frequency sound reflection Bezrukikh, V. V., ** Solar plasma observations from Mars-2 and Mars-3 (II)	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31 29 1	6373 648 1723 8276 798 1603 7623 8463 4702 6755 2201 1615 7372 680 2601 597 3390 5808	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * N ₂ vibrational temperature (L) Breeding, E. L., Solar flux variations (B) Brekke, A., * Neutral winds in auroral E region Brence, W. A., * NASA-MPE barium cloud experiment, 1 Brennan, M. E., ** N ₂ vibrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 moon samples Briggs, G. A., ** Mariner 9 mission Brinca, A. L., Whistler modulational instability Broadfoot, A. L., ** Comment on paper by Cartwright et al. (L) Broceker, W. S., ** 228ga in the world ocean Brolley, J. E., * Photoabsorption cross sections Brooks, J. M., * Hydrocarbons Brooks, J. M., ** Hydrocarbons Brooks, J. N., ** Vertical distribution of CO
speed (L) Belrose, J. S., ** Analysis of partial-reflection experiment Benkova, N. P., * Geomagnetic field Bennett, D. J., ** Micropulsations recorded by array Bennett, H. F., ** Ultrasonic shear wave birefringence Bennett, H. F., ** Sonic petrographic analysis Benson, R. F., * Electron temperature measurements (B) Benson, R. F., * Sumultaneous electron temperature comparison (B) Benson, R. F., * Correction Bergantino, R. N., ** Mexican ridges Berger, K., ** Lightning flash (B) Bering, E. A., * Current density in an aurora Berko, F. W., Field-aligned particle morphology Bernstein, W., ** Cold plasma and whistler instability Berraux, J. L., * Upper geocorona Beske, S. J., Jr., * Paleomagnetism in the Cenfral Cascades Bewick, A., * Low-energy solar protons Bezdek, H. F., High-frequency sound reflection Bezrukikh, V. V., ** Solar plasma observations	4 10 34 5 10 32 35 22 28 34 14 21 13 10 31 29 1	6373 648 1723 8276 798 1603 7623 8463 4702 6755 8412 2291 1615 772 6863 80 2601 597 3390	Bradford, C. M., ** Vertical distribution of CO Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Sloping snow slab Bradley, C. C., ** Snow failure criterion Braile, L. W., Inversion of seismic data Brandt, J. C., * Comments on paper by Leer and Holzer (L) Breeding, R. J., * Trace gas concentrations Breig, E. L., * No vibrational temperature (L) Breig, E. L., * Solar filux variations (B) Brekke, A., * Neutral winds in auroral E region Brence, W. A., * NASA-MPE barium cloud experiment, 1 Brennan, M. E., ** No vibrational temperature (L) Brennecke, J., ** Interaction of tides Breus, T. K., ** Solar plasma observations from Mars-2 and Mars-3 (L) Brice, N., ** Wave amplification and particle stability (B) Briggs, F., ** Apollo 12 moon samples Briggs, G. A., ** Mariner 9 mission Brinca, A. L., Whistler modulational instability Broadfoot, A. L., ** Comment on paper by Cartwright et al. (L) Broecker, W. S., ** 228Ra in the world ocean

R. L., ** Sloping snow slab	2 339	Chance, M. S., * Finite β drift Alfvén instability (B)	31 7521
	23 4950	Chandler, D. C., ** Neutron flux spectra	16 2715
R. R., Conjugate ionospheric absorption (B) R. R., Microburst trains in August 4-6, 1972 (L)	10 1668		16 3007 22 4630
	25 5698	Chang, Z. P., * Pressure dependence of spinel	14 2418
J. G., Equatorial undercurrent in Indian		Chao, J. K., ** MHD bow shock	19 3731
nean (B)	27 6386	Chao, J. K., Nonlinear wave steepening	25 5411 8 1361
. L., ** Multidomain magnetic behavior	8 1387	Chapman, C. H., ** Hawaiian linear volcanic chain Chappell, C. R., ** Density enhancements and whistlers	
R. M., ** Pitch angle distributions	7 1064	Chappell, C. R., ** High-latitude nightside plasma	
R. M., ** Substorm studies, 6	16 3093	instability	13 2150
	16 3103	Chappell, C. R., ** Backscattered auroral electrons Chappell, C. R., ** Substorm studies, 3	13 2176 16 3062
C. E., Comments on paper by Storari and codonald (L)	30 7162	Chase, S. C., Jr., ** Mariner 9 mission	20 4291
g, D. K., * Lattice diffusion in obivine	29 6852	Chen, A. A., Cross-field instability (B)	22 4707
gton, A., ** Geomagnetic cutoffs and subcutoff	10 7515	Chimonas, G., Vertical movement of sporadic E	25 5636 11 1854
mgton, E. C., ** Comments on paper by Holmes	10 1515	Chodos, A. A., ** Carbonatite-kimberlite relations Chodos, A. A., ** Correction (L)	32 7788
a1. (L)	17 3517	Choudhury, M. A., * Spectral ratio of ScP and ScS	
** Structure of Southwest Japan margin	14 2517	phases	2 462 26 6021
** Fast China Sea-West Philippine Sea margin	14 2526 7 1047	Chowdhury, D. K., * Lasa PcP and P phases Choy, G., * Enhancement of long-period signals	17 3505
J. L., Effects of sector structure J. L., ** Substorm electron precipitation	16 2867	Choy, L. W., ** Auroral electrons less than 1 kev	13 2187
J. L., Initial phase proton precipitation	28 6569	Christensen, A. B., ** Permitted oxygen line tropical	7 2274
md. R. O., ** Relative plate motion	5 832	nightglow Christenson A B * Conjugate excitation of O I	7 1174
J. J., * Cosmic ray modulation (L) G. de P., ** Galactic cosmic ray modulation (B)	1 292 16 3013	Christensen, A. B., * Conjugate excitation of O I airglow (B)	13 2315
G. de P., ** Galactic cosmic ray modulation (b) T., ** Mariner 9 mission	20 4267	Christophersen, P., ** Auroral particles and electric	
W. J., * Storm effects at 60 RE	25 5477	fields (L) Church T M ** Pa Th and H in interstitial water	19 3976
W F ** Correction (L)	25 5844 27 6790	Church, T. M., ** Ra, Th, and U in interstitial water (B)	21 4529
W. J., * Plasma flow in neutral sheet (L) W. J., ** Plasma sheet at lunar distance	34 8097	Cicerone, R. J., ** Multilateral temperature com-	
	13 2028	parisons	1 -197
s, J. R., ** Boundary of closed field lines (B)	13 2311	Cicerone, R. J., * Comparison of photoelectron calculations	28 6709
W. J. Electron concentrations for LAR hoise	25 5515 10 1581	Ciner, E., * Night airglow	10 1654
n, R. K., ** Plasmaspheric hiss k, P. R., ** Lattice diffusion in olivine	29 6852	Cladis, J. B., Wave particle interactions	34 8129
P. R., ** Ulivine in meteorites	32 7581	Claflin, E. S., * Inner belt protons (B) Clark, R. R., ** Gravity waves during eclipse (L)	22 4675 19 3995
ger, J. A., ** Heat flux from the sea (B)	12 1964 31 7563	Clarke, G. K. C., ** Predictive filtering	23 4959
er, E. C., Eclipse gravity wave (L)	34 8023	Clifton, K. S., Television studies of faint meteors	28 6511
B., Solar wind instability R. F., Low-temperature oxidation of oceanic		Cloutier, P. A., * Birkeland currents and particle	4 640
casalts	29 6868	fluxes Cohen, R., Equatorial electrojet irregularities	13 2222
		Colburn, D. S., ** Substorm studies, 2	16 3054
		Colburn, D. S., ** Substorm studies, 2 Colburn, D. S., ** Lunar night side EM response	19 3688
		Colburn, D. S., ** Sector boundaries (B)	19 3952
M N * Toil lobe magnetic variations	34 8087	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results	1 25 5437
on, M. N., * Tail lobe magnetic variations	24 5352	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experimenta results Colburn, D. S. ** Storm effects at 60 Rp	25 5437 25 5477
R. D., ** CO and CH4 in the mesosphere	24 5352 22 4724	Colburn, D. S., ** Sector boundaries (8) Colburn, D. S., ** Lunar magnetosphere, 2, experimenta results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B Coleman, P. J., Lr., ** Superpressingles 4	25 5437 25 5477 1 51 16 3068
ill, L. J., Jr., (S ³ - A) initial results, 3	24 5352 22 4724 22 4765	Colburn, D. S., ** Sector boundaries (8) Colburn, D. S., ** Lunar magnetosphere, 2, experimenta results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B Coleman, P. J., Lr., ** Superpressingles 4	25 5437 25 5477 1 51 16 3068
sile, L. J., Jr., (S ³ - A) initial results, 3 ill, L. J., Jr., ** (S ³ - A) initial results, 9 n. D. L., * Mariner 9 mission the Jr., ** (L., Thermal waves Jr., Jr., Jr., Jr., Jr., Jr., Jr., Jr.,	24 5352 22 4724	Colburn, D. S., ** Sector boundaries (8) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector	25 5437 25 5477 1 51 16 3068 34 8180
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S ³ - A) initial results, 3 ill, L. J., Jr., ** (S ³ - A) initial results, 9 n. D. L., * Mariner 9 mission that J. L. Thermal waves	24 5352 22 4724 22 4765 20 4352 6 981 27 6272	Colburn, D. S., ** Sector boundaries (8) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L)	25 5437 25 5477 1 51 16 3068 3 34 8180 10 1715
ill, L. J., Jr., (S ³ - A) initial results, 3 ill, L. J., Jr., ** (S ³ - A) initial results, 9 n, D. L., * Mariner 9 mission rns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow than P. S., Mariner 9 mission	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330	Colburn, D. S., ** Sector boundaries (8) Colburn, D. S., ** Lunar magnetosphere, 2, experimenta results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L)	25 5437 25 5477 1 51 16 3068 34 8180
ill, L. J., Jr., (S ³ - A) initial results, 3 ill, L. J., Jr., ** (S ³ - A) initial results, 9 n, D. L., * Mariner 9 mission rns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow than P. S., Mariner 9 mission	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082	Colburn, D. S., ** Sector boundaries (8) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L)	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441
sile, R. D., ** CO and CH4 in the mesosphere ill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 in D. L., * Mariner 9 mission rms, J. L., Thermal waves in shear flow liahan, P. S., Mariner 9 mission lien, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Hoos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845
sile, R. D., ** CO and CH4 in the mesosphere ill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., (** (S³ - A) initial results, 9 in D. L., * Mariner 9 mission trns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow lahan, P. S., Mariner 9 mission len, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation p., ** Tropospheric temperature profiles makell w H. * Polar cap sector field	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Hoos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441
ill, L. J., Jr., (S ³ - A) initial results, 3 ill, L. J., Jr., ** (S ³ - A) initial results, 3 ill, L. J., Jr., ** (S ³ - A) initial results, 9 n. D. L., * Mariner 9 mission ims, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow than, P. S., Mariner 9 mission ilen, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation **, D., ** Tropospheric temperature profiles copell, W. H., * Polar cap sector field	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267
sile, R. D., ** CO and CH4 in the mesosphere silt, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 in D. L., * Mariner 9 mission trus, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow tahan, P. S., Mariner 9 mission tlen, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation p., ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field to the true for the tru	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of No and On.	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663
sile, R. D., ** CO and CH4 in the mesosphere silt, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 in D. L., * Mariner 9 mission trus, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow tahan, P. S., Mariner 9 mission tlen, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation p., ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field to the true for the tru	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N2 and 02 Corbin, V. L., * Periodic phenomena	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 in, D. L., * Mariner 9 mission trns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission llem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation p. B., ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature com-	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of No and On.	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 n. D. L., * Mariner 9 mission trns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission lem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation ", D., ** Tropospheric temperature profiles mobell, W. H., * Polar cap sector field mphell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rlson, H. C., ** Multilateral temperature comparisons Tlson, R. W., ** Photodissociation continuums of N2 rlson, R. W., ** Photodissociation continuums of N2	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection	25 5437 25 5477 1 51 16 3068 3 4880 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 in, D. L., * Mariner 9 mission rns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission llem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation plen, J. D., ** Tropospheric temperature profiles mobell, W. H., * Polar cap sector field mobell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 n. D. L., * Mariner 9 mission trns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission lem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation ", D., ** Tropospheric temperature profiles mobell, W. H., * Polar cap sector field mphell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rlson, H. C., ** Multilateral temperature comparisons Tlson, R. W., ** Photodissociation continuums of N2 rlson, R. W., ** Photodissociation continuums of N2	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Hoos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite β drift Alfvén instability	25 5437 25 5477 1 51 16 3068 3 48180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521
sile, R. D., ** CO and CH4 in the mesosphere (il), L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves ideell, D. R., * Waterdrops in shear flow tlahan, P. S., Mariner 9 mission lien, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation appletl, W. H., * Polar cap sector field mpbell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., ** CO2* 2890-A (L) raichael, D., ** Recording ocean bottom seismograph (L)	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₀ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Codigate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., ** Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Heat flow in southwestern Virginia Costain, J. K., ** Heat flow in southwestern Virginia	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow slahan, P. S., Mariner 9 mission lien, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation applet, ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field mpbell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., ** CO2* 2890-A (L) raichael, D., ** Recording ocean bottom seismograph (L) raichael, D., ** Substorm studies, 3	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and 0 ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite ß drift Alfvén instability (B) Costain, J. K., ** Heat flow in southwestern Virginia Costain, J. K., * Heat flow in Utah	25 5437 25 5477 1 51 16 3068 3 48180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow slahan, P. S., Mariner 9 mission lien, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation applet, ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field mpbell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., ** CO2* 2890-A (L) raichael, D., ** Recording ocean bottom seismograph (L) raichael, D., ** Substorm studies, 3	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B _θ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., ** Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in Southwestern Virginia Costain, J. K., * Heat flow in Utah Coutinho, E. F., ** Electron precipitation into	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves deell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission liem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation and J. D., ** Tropospheric temperature profiles appell, W. H., * Polar cap sector field appell, W. H., * Polar cap sector field appell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rison, R. W., * CO2* 2890-A (L) raichael, D., * Recording ocean bottom seismograph (L) repenter, D. L., ** Substorm studies, 3 repenter, D. L., * Substorm studies, 3 repenter, G., * Crustal deformation repenter, G., * Crustal deformation repenter, G., ** Recording ocean bottom seismograph repenter, G., ** Recording ocean bottom seismograph.	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combox, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N2 and 02 Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite ß drift Alfvén instability (B) Costain, J. K., ** Heat flow in southwestern Virginia Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Cover. T. N. R., Analysis of wave interaction	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow slahan, P. S., Mariner 9 mission len, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation app. D., ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field mpbell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., ** CO2* 2890-A (L) raichael, D., ** Recording ocean bottom seismograph (L) raichael, D., ** Recording ocean bottom seismograph repenter, D. L., ** NASA-MPE barium cloud experiment repenter, G., ** Crustal deformation repenter, G., ** Recording ocean bottom seismograph (L)	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N2 and 02 Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite ß drift Alfvén instability (B) Costain, J. K., ** Heat flow in Southwestern Virginia Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 in. D. L., * Mariner 9 mission trns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission tlem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation to the state of the stat	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and 0 ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., ** Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Heat flow in southwestern Virginia Costain, J. K., * Heat flow in Jutah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., * Analysis of partial-reflection coververiment	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 ill, L. J., Jr., ** (S³ - A) initial results, 9 ill, L. J., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission lem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation left. The state of the	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748 18 3621 20 4031	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Codigate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., ** Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in Southwestern Virginia Costain, J. K., * Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 n. D. L., * Mariner 9 mission rms, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission llem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation **, D., ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field wpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., * CO2* 2890-A (L) michael, D., * Recording ocean bottom seismograph (L) rmenter, D. L., ** Substorm studies, 3 repenter, D. L., ** NASA-MPE barium cloud experiment repenter, G., ** Recording ocean bottom seismograph (L) rpenter, J. H., * Magnesium to chlorinity ratios in sea water (B) rr, M. H., * Mariner 9 mission remains the marger of mission remains the marg	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748 18 3621 20 4031 20 4049 25 5726	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Codigate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., ** Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in southwestern Virginia Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission trns, J. L., Thermal waves sidell, D. R., * Waterdrops in shear flow slahan, P. S., Mariner 9 mission len, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation q., D., ** Tropospheric temperature profiles mpbell, W. H., * Polar cap sector field mpbell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., ** CO2* 2890-A (L) raichael, D., * Recording ocean bottom seismograph (L) trenter, D. L., ** NASA-MPE barium cloud experiment repenter, G., ** Crustal deformation argenter, G., ** Recording ocean bottom seismograph (L) trenter, J. H., * Magnesium to chlorinity ratios in sea water (B) sea water (B) ser, M. H., * Mariner 9 mission tr. M. H., Mariner 9 mission tr. M. H., Mariner 9 mission tr. M. H., * Mariner 9	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748 18 3621 20 4049 25 5726 13 2365	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B _θ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Compart, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and 0 ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., ** Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in southwestern Virginia Costain, J. K., * Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972 (L) Crystal T. L., ** Cyclotron feedback model	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977 16 3159 31 7357
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 n. D. L., * Mariner 9 mission rns, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission llem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation temperature profiles mobell, W. H., * Polar cap sector field mobell, W. H., * Polar cap sector field mobell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., * CO2* 2890-A (L) rmichael, D., * Recording ocean bottom seismograph (L) rmenter, D. L., ** Substorm studies, 3 repenter, D. L., ** NASA-MPE barium cloud experiment repenter, G., ** Crustal deformation arpenter, G., ** Recording ocean bottom seismograph (L) rpenter, J. H., * Magnesium to chlorinity ratios in sea water (B) rr, M. H., * Mariner 9 mission sea water (B) rr, M. H., * Mariner 9 mission rr, R. E., ** NASA-MPE barium cloud experiment, 1 reveright, D. C., * Reply (L) seen P. * Convection in the moon	24 5352 22 4724 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748 18 3621 20 4031 20 4049 25 5726 13 2365 17 3203	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combos, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in Southwestern Virginia Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972 (L) Crystal, T. L., ** Cyclotron feedback model	11 25 5437 25 5477 1 51 63068 2 441 29 6845 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 29 6977 16 3159 31 7357 30 7033
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 ill, L. J., Jr., ** (S³ - A) initial results, 9 ill, L. J., Jr., ** (S³ - A) initial results, 9 ill, L. J., Mariner 9 mission ins, J. L., Thermal waves ideal, D. R., * Waterdrops in shear flow shahan, P. S., Mariner 9 mission is made in the same of th	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748 18 3621 20 4049 25 5726 13 2365	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combos, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in Southwestern Virginia Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972 (L) Crystal, T. L., ** Cyclotron feedback model	25 5437 25 5477 1 51 16 3068 34 8180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977 16 3159 31 7357 30 7033 32 34920
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 in. D. L., * Mariner 9 mission stras, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow liahan, P. S., Mariner 9 mission slem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation slem, J. D., ** Magnetospheric temperature profiles mobell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rlson, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., * CO2* 2890-A (L) raichael, D., * Recording ocean bottom seismograph (L) raichael, D., * Recording ocean bottom seismograph (L) repenter, G., ** Crustal deformation argenter, G., ** Recording ocean bottom seismograph (L) repenter, J. H., * Magnesium to chlorinity ratios in sea water (B) rr, M. H., * Mariner 9 mission rr, M. H., * Convection in the moon stagnoli, G. C., ** Poisrnal waves underground stillo, E., ** NASA-MPE barium cloud experiment, 1 results, G. ** Poisrnal waves underground stillo, E., ** Dispersion in aquifers	24 5352 22 4724 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 25 5736 5 846 35 8748 18 3621 20 4031 20 4049 25 5726 13 2365 17 3203 31 7174 3 558 22 4745	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combos, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972 (L) Crystal, T. L., ** Cyclotron feedback model Csoeke-Poeckh, A., ** Nitric acid in stratosphere Cukierman, M., * Viscosity of liquid anorthite Cumming, C., * Stratospheric methane	11 25 5437 25 5477 1 51 63068 3 48180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977 16 3159 31 7357 30 7033 23 4920 24 5259 6 920
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow slahan, P. S., Mariner 9 mission len, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation appell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., ** CO2* 2890-A (L) rmichael, D., ** Recording ocean bottom seismograph (L) repenter, D. L., ** NASA-MPE barium cloud experiment repenter, G., * Crustal deformation repenter, G., * Crustal deformation repenter, G., ** Recording ocean bottom seismograph (L) rpenter, J. H., * Magnesium to chlorinity ratios in sea water (B) rr, M. H., * Mariner 9 mission rr, * R. E., * * NASA-MPE barium cloud experiment, 1 rwight, D. C., * * Peply (L) repenter, I h. * * * * * * * * * * * * * * * * * *	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 35 8748 36 8748 37 8748 38 8748 39 8748 30 8748 31 8 3621 20 4049 25 5726 31 2365 31 7174 3 558 22 4745 24 5341	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combos, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972 (L) Crystal, T. L., ** Cyclotron feedback model Csoeke-Poeckh, A., ** Nitric acid in stratosphere Cukierman, M., * Viscosity of liquid anorthite Cumming, C., * Stratospheric methane	11 25 5437 25 5477 1 51 63068 3 48180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977 16 3159 31 7357 30 7033 23 4920 24 5259 6 920
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow lahan, P. S., Mariner 9 mission llem, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation and J. D., ** Tropospheric temperature profiles appell, W. H., * Polar cap sector field appell, W. H., * Polar cap sector field appell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rison, R. W., * CO2* 2890-A (L) raichael, D., * Recording ocean bottom seismograph (L) repenter, D. L., ** Substorm studies, 3 repenter, D. L., ** Substorm studies, 3 repenter, D. L., ** Recording ocean bottom seismograph (L) repenter, G., * Crustal deformation repenter, G., * Recording ocean bottom seismograph (L) sea water (B) r., M. H., * Magnesium to chlorinity ratios in sea water (B) rr, M. H., * Mariner 9 mission ser, M. H., Mariner 9 mission rr,	24 5352 22 4724 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 16 3062 2 55 5736 5 846 35 8748 18 3621 20 4031 20 4049 25 5726 13 2365 17 3203 31 7174 3 558 22 4745 24 5341 10 1775	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combos, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N ₂ and O ₂ Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., * Regulation of magnetospheric convection Coroniti, F. V., ** Finite β drift Alfvén instability (B) Costain, J. K., ** Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972 (L) Crystal, T. L., ** Cyclotron feedback model Csoeke-Poeckh, A., ** Nitric acid in stratosphere Cukierman, M., * Viscosity of liquid anorthite Cumming, C., * Stratospheric methane	11 25 5437 25 5477 1 51 63068 3 48180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977 16 3159 31 7357 30 7033 23 4920 24 5259 6 920
sile, R. D., ** CO and CH4 in the mesosphere sill, L. J., Jr., (S³ - A) initial results, 3 ill, L. J., Jr., ** (S³ - A) initial results, 9 a. D. L., * Mariner 9 mission rms, J. L., Thermal waves dwell, D. R., * Waterdrops in shear flow slahan, P. S., Mariner 9 mission len, J. D., ** Magnetospheric HF waves meron, W. S., ** Tektite ablation appell, W. H., * Polar cap sector field mpbell, W. J., ** Sea ice rdell, G. R., ** Supercooled water (B) rder, K. L., * Particles in surface waters rison, H. C., ** Multilateral temperature comparisons rlson, R. W., ** Photodissociation continuums of N2 and O2 rlson, R. W., ** CO2* 2890-A (L) rmichael, D., ** Recording ocean bottom seismograph (L) repenter, D. L., ** NASA-MPE barium cloud experiment repenter, G., * Crustal deformation repenter, G., * Crustal deformation repenter, G., ** Recording ocean bottom seismograph (L) rpenter, J. H., * Magnesium to chlorinity ratios in sea water (B) rr, M. H., * Mariner 9 mission rr, * R. E., * * NASA-MPE barium cloud experiment, 1 rwight, D. C., * * Peply (L) repenter, I h. * * * * * * * * * * * * * * * * * *	24 5352 22 4724 22 4765 20 4352 6 981 27 6272 20 4330 7 1082 17 3491 27 6218 13 2079 18 3654 36 8864 27 6286 1 197 10 1663 16 3194 35 8748 35 8748 36 8748 37 8748 38 8748 39 8748 30 8748 31 8 3621 20 4049 25 5726 31 2365 31 7174 3 558 22 4745 24 5341	Colburn, D. S., ** Sector boundaries (B) Colburn, D. S., ** Lunar magnetosphere, 2, experiments results Colburn, D. S., ** Storm effects at 60 R _E Coleman, P. J., Jr., ** Interplanetary magnetic B ₆ Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Substorm studies, 4 Coleman, P. J., Jr., ** Micropulsations in the morning sector Coletti, A., ** Heos magnetosheath observations (L) Colgate, S. A., Reply (L) Combs, J., Terrestrial heat flow Comfort, G. C., Gravity mapping using a satellite pair Conel, J. E., ** Crustal structure of Mars Conrath, B., * Mariner 9 mission Cook, G. R., * Photodissociation continuums of N2 and 02 Corbin, V. L., * Periodic phenomena Cornwall, J. M., * Correction (L) Coroniti, F. V., ** Regulation of magnetospheric convection Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Substorm studies, 8 Coroniti, F. V., ** Finite ß drift Alfvén instability (B) Costain, J. K., ** Heat flow in southwestern Virginia Costain, J. K., * Heat flow in Utah Coutinho, E. F., ** Electron precipitation into geomagnetic anomaly (L) Coyne, T. N. R., Analysis of wave interaction Coyne, T. N. R., * Analysis of partial-reflection experiment Cox, A., ** Detecting short magnetic polarity intervals Croft, T. A., High solar wind density in August, 1972 (L) Crystal, T. L., ** Cyclotron feedback model Csoeke-Poeckh, A., ** Nitric acid in stratosphere Cukierman, M., * Viscosity of liquid anorthite Cummaing C. * * Stratospheric methane	11 25 5437 25 5477 1 51 63068 3 48180 10 1715 18 3630 2 441 29 6845 23 4815 20 4267 10 1663 27 6199 28 6830 16 2837 16 3119 31 7521 8 1323 35 8687 25 5830 1 206 34 8276 29 6977 16 3159 31 7357 30 7033 23 4920 24 5259 6 920

Curran, R., ** Mariner 9 mission	20 4267	Duce, R. A., * Halogens in the Antarctic
Cutts, J. A., * Mariner 9 mission	20 4139	Duce, R. A., * Halogens in the Antarctic Duggal, S. P., ** Pitch angle distribution of
Cutts, J. A., ** Mariner 9 mission	20 4197	solar particles
Cutts, J. A., Mariner 9 mission	20 4211	Duggal, S. P., * Cosmic rays from solar invisible
Cutts, J. A., Mariner 9 mission	20 4231	disk
		Dunlop, D. J., * Multidomain magnetic behavior in
		rocks
		Dunlop, D. J. Threshold sizes in magnetite
Dahlen, F. A., ** Azimuthal dependence of wave		Dunlop, D. J., TRM in submicroscopic magnetite
propagation	17 3321	Dunn, D. E., * Brittle fracture in sandstones Durney, B. R., One-fluid solar wind model
Dahms, R. G., * Surveyor 3 analysis	28 6507	Durrani, S. A., ** Elements in tektites
Daily, W. D., Alfven wave refraction	13 2043	Duxbury, T. C., ** Mariner 9 mission
Daley, J. C., Radar sea return	33 7823	
Damle, S. V., ** Cosmic ray electrons	10 1487	
D'Angelo, N., Polar cusp ULF (L) D'Angelo, N., Radar aurora (L)	7 1206 19 3987	
D'Arcy, R. G., Jr., ** Substorm studies, 7	16 3103	
Dartt, D. G., ** Zonal wind (B)	27 6373	Ehhalt, D. H., * Methane in atmosphere Ehhalt, D. H., ¹³⁷ C _S and HTO in troposphere
da S. Reis, E. M., ** Electron precipitation into		Ehhalt, D. H., 137Cs and HTO in troposphere
geomagnetic anomaly (L)	25 5830	Earl, J. A., "" Low-energy cosmic ray electrons
Datta, R. N., Sporadic E ionization (L)	1 320	Eather, R. H., * Substorm effects in auroral spectra Ecklund, W. L., ** Radar Doppler spectra (B)
Davey, F. J., ** Antarctic profiler data	17 3448	Ecklund, W. L., ** Radar Doppler spectra (B)
Davidson, G. T., Enhancement of artificial electron	71-7560	Ecklund, W. L., * Diffuse radar auroras (L)
belts (L) Davies, M. E., * Mariner 9 mission	31 7569	Ecklund, W. L., ** Auroral currents, irregularities,
Davies, M. E., ** Mariner 9 mission	20 4355	and luminosity Economou, T. E., * Alpha particle experiment
Davis G. F., * MgO elastic velocities	32 7596	Edgar, B. C., ** Production of CO
Davis G. F., * MgO elastic velocities Davis, J. R., ** RF heating in E region (B)	25 5710	Edgar, B. C., * Auroral protons in nitrogen
Davis, L., Jr., * Comments on paper by N. F. Ness		Edgerley, D., ** Cross sections
et al. (L)	22 4803	Egeland, A., ** Auroral particles and electric
Davis, T. N., ** Conjugate auroral intensities Davis, T. N., * NASA-MPE barium cloud experiment, 2	4 659	fields (L)
Dawson, G. A., * Terminal velocity of raindrops (B)	25 5732 18 3619	Egidi, A., ** Heos 2 magnetosheath observations (L)
Dawson, G. A., Charged water droplets (B)	27 6364	Einarsson, P, ** Microearthquakes in Iceland Eittreim, S., * Comments on paper by Ichiye et al. (L)
Dawson, G. A., * Supercooled water	36 8864	Elliott, W. P., * Oceanic rainfall
Dawson, J., Correction (L)	28 6831	Elliott, W. P., ** Waterdrops in shear flow
DeForest, S. E., Solor wind at synchronous orbit (L)	7 1195	Elliott, W. P., ** Precipitation in the North
De Frazio, T. L., * Solid earth tide	8 1319	racific
Dejnakarintra, M., ** Thundercloud electric fields	28 6623	Ellis, R. M., ** Hawaiian linear volcanic chain
Delany, A. C., * Tropospheric aerosol DeLeonibus, P. S., * Wave spectra	27 6249	Ellsworth, W. L., ** Seismicity preceding earth-
Delnore, V., ** Rossby waves	15 2650 27 6316	quakes
Delnore, V., ** Rossby waves Den, N., ** Southwest Japan margin	14 2508	Ellwood, B. B., * Terceira Island paleomagnetism Englemann, F., ** Scattering and decay of EN waves (B)
Den, N., ** Structure of southwest Japan margin	14 2517	Englert, T. R., ** Trace gas concentrations
Den, N., ** East China Sea-West Philippine Sea margin	14 2526	Erickson, K. N., * Electron dropouts and electrojets
Den, N., ** Sulu and Celebes seas Den, N., ** Refraction measurements northeast of	17 3437	(4)
New Ireland	75 0657	Eross, B., ** Mariner 9 mission
Denman, K. L., ** Wave field	35 8653	Etcheto, J., * Self-consistent theory of ELF hiss
DeRycke, R. J., Sea ice off Antarctica (B)	12 1917 36 8873	Evans, J. V., ** Multilateral temperature comparisons Evans, J. V., F region electron temperatures (L)
Desnoyers, J. E., ** Heat capacity of seawater	21 4499	Evans, W. F. J., * Mesospheric hydrogen con-
Dessler, A. J., Infrasonic thunder	12 1889	Centrations (L)
Destler, W. W., ** Simulated plasma clouds	31 7417	Eviatar, A., ** CGL equations (B)
de Vaucouleurs, G., * Mariner 9 mission	20 4395	Ewing, J., ** Crustal deformation
de Vaucouleurs, G., * Mariner 9 mission	20 4436	Ewing, J. A.; Waves
Dias, L, * Electron cyclotron lines (L)	19 3633	Ewing, M., ** Structure of Southwest Japan margin
Dickinson, R. E., ** Global mean thermospheric	10 1730	Ewing, M., ** East China Sea-West Philippine Sea
temperature	1 249	
Dickinson, R. E., Infrared cooling	21 4451	
Dickinson, W. R., Growth of arc-trench gaps	17 3376	
VIASHIL. J. K., ** Cerenkov radiation and VIE bicc	1 191	the same of the sa
Dimri, V. P., ** Ambiguity assessment of gravity	2200	Fabiano, F. R. ** Coomercation
Dodero, M. A., ** Diurnal waves underground	17 3281	Fabiano, E. B., ** Geomagnetic secular change (analysis) (B)
Dohne, C. F., ** Turbulent flow in a tidal estuary	31 7174	Fairfield, D. H., Magnetospheric substerm
	12 1971	signatures
Doles, J. H., III, ** Plasma clouds in the	14 13/1	Fanale, F. P., ** Carbonaceous chondrites and
	4 697	asteroids
Doles, J. H., III, ** Plana clouds in the ionosphere, 2		Farley, D. T., * Instabilities in equatorial electrojet
Dolginov, Sh. Sh. ** Geomagnatic field	4 711	Farley, D. T., ** Equatorial electrojet
Dolginov, Sh. * Magnetic field near Mana (1)	5 798	irregularities
Domingo, V., " Heos / magnetocheath observation (t)	22 4779	Farley, D. T., ** Observations of electroiet
Donalde, 1. M Upo 6 alralow observations	10 1715 28 6662	turburence
	21 4482	Farley, T. A., ** Substorm studies, 5
	2 462	ration, N. H., * A ray analysis of hallon collect.
zone zone		
Doupnik, J. R. ** Neutral winds in	28 6607	Farnell G W ** Party Stratosphere (L)
	34 8235	Feden, R. H., ** Mexican ridges
	4 684 28 6690	Feden, R. H., ** Mexican ridges Feely, H. W., ** 228Ra in the world ocean
	20 4163	investigation of NO+ + O NO. +
Dubois, J., * Travel times in the Fiji-New Hebrides region	1400	
Dubois, J., ** Seismic velocity anomalies in New	17 3431	Fehsenfeld, F. C., * Atomic sulfur ion reations (3) Feldman, P. D., ** FUV dawn airglow
Hebrides arc		Feldman, P. D. Davtine ion showing
	29 6998	Feldman, W. C., * Double ion streams
8806		224 0440

an, W. C., * Solar wind electrons an, W. C., * Solar wind proton anisotropy	19 3697 28 6451	Gary, S. P., ** Particle acceleration (B)	31 7531
tein, Y. I., Auroral oval (L)	7 1210	Gary, S. P., ** Farley-Buneman instability Gasparini, P., ** Tyrrhenian Sea volcanism	34 8261 23 5221
11, J. F., Solar proton access	7 1036	Gattinger, R. L., * 0 ₂ 1.27-µ emissions in aurora	34 8305
ll, J. F., ** Inner zone alpha particles r, M. A., ** Lunar electric potential	25 5498	Gaut, N. E., ** Kinetic energy in atmosphere	15 2630
r, M. A., ** Lunar electric potential	22 4560	Gaut, N. E., ** Kinetic energy in atmosphere Gendrin, R., ** Pc 1 pulsations, 1 (L)	4 763
ion, E. E., ** Investigation of $N0^+ + O_3 \rightarrow NO_2^+$	1 707	Gendrin, R., ** Fine structure of Pc 1 pulsations,	14 7194
son, E. E., ** Atomic sulfur ion reactions (B)	1 327 10 1699	2 (L) Condrin P ** Colf consistent theory of ELE hiss	16 3176 34 8150
no, A. J., ** Partial reflection experiment (L)	4 774	Gendrin, R., ** Self-consistent theory of ELF hiss Gendrin, R., A geophysical amplifier (L)	34 8387
1. G. H., * Tropospheric temperature profiles	27 6218	Gérard, JC., ** Ultraviolet equatorial dayglow	22 4641
m, J., * Caldera collapse	35 8591	Gerlach, J. C., ** NASA-MPE barium cloud experiment,	
Istein, D., * Earthquake lightening (B)	6 992	1	25 5726
an, E. L, ** Eight recently fallen meteorites r, E. R., ** Vibrational temperature of N ₂	17 3249 27 6151	Gibbs, A. G., * Trace gas concentrations (B) Gierasch, P., ** Mariner 9 mission	3 574 20 4163
r, R. J., ** Lightning return stroke	18 3523	Giraud, A., Reply (L)	1 332
r, R., J., ** Florida lightning return strokes	18 3530	Giraud, C., Diurnal waves underground	31 7174
L. A., * Solar modulation, 3	7 995	Gleeson, L. J., ** Anisotropies during Forbush	
L. A., * Interplanetary magnetic fluctuations		decreases	28 6409
bo, G., ** Mariner 9 mission	28 6729 20 4331	Gloersen, P., * Sea ice Goble, D. F., ** Fe ³⁺ /Fe ²⁺ ratios in titanomagnetites	18 3564 17 3301
r, F. M., * Energetics of core formation	26 6101	Goel P. S. ** Nuclide production rates	23 4885
cher, R. L., * Lunar chronology	23 4841	Goel, P. S., ** Nuclide production rates Goetze, C., * Dislocation climb in olivine	26 5961
ng, H. S., ** Mexican ridges	14 2498	Gokhale, N. K., ** wake effect of waterdrops	3 497
her, R. C., Nonhydrostatically stressed		Gokhale, N. R., ** Collision of suspended water	0.400
rystals	32 7661	drops (B)	9 1472
ol, M., ** Undular surges in Seneca Lake	3 539 30 7057	Gold, R. E., * Forbush predecrease Goldan, P. D., * Ion temperature errors	4 577 16 2907
B., ** Trace gas concentrations H. M., * Stratospheric NO	21 4441	Goldberg, R. A., ** Metallic ions in the equatorial	
ev, G. A., ** Magnetotelluric research in the		ionosphere	4 734
retie	8 1398	Goldberg, R. A., ** NO ₂ + in lower ionosphere (L)	7 1229
J. C., ** Photoabsorption cross sections	10 1627	Goldman, A., * Vertical distribution of CO	24 5273
n, J., Comments on paper by Poet et al. (L)	30 7149	Goldman, A., ** Nitric acid in stratosphere Goldman, J. L., * Thunderstorm cells	30 7033 6 913
s, J. M., * Thermospheric density variations	19 3841 8 1383	Goldstein, B. E., ** Storm effects at 60 RE	25 5477
s, R. B., * Ages of Alaskan blueschists sh, S. E., Cosmic ray diurnal anisotrophy	0 1303	Goldstein, B., ** Solar wind interaction with	25 5477
937-1972	34 7933	moon (B)	28 6741
m, M. A., ** Solar modulation, 3	7 995	Goldstein, J. I., ** Canyon Diablo spheroids	2 363
sano, V., March 7-8, 1970, event (L)	7 1198	Gonzalez, W. D., ** Polar cap convection (L)	28 6784
sano, V., * Magnetosheath	19 3714	Gordon, A. L., ** Comments on paper by	27 6401
sano, V., * MHD bow shock	19 3731 19 3745	Ichiye et al. (L) Gordon, C. M., * Turbulent flow in a tidal	27 0401
sano, V., * Bow shock classification sano, V., * Turbulent bow shock	28 6522	estuary (B)	12 1971
sano, V., Bow shock motion (L)	28 6787	Gordon, W. E., ** Electron cyclotron lines (L)	10 1730
er, W. B., ** Low-latitude 6300-A nightglow	25 5658	Gosling, J. T., * Solar wind proton temperatures	13 2001
P., ** Mariner 9 mission	20 4163	Gosling, J. T., ** Dynamics and solar wind parameters Goswami, J. N., ** Cosmic-ray tracks in meteorites (L)	28 6469
P. J., * Magnetic properties of oceanic rocks	23 5139 23 5155	Gouveia, H., ** Permitted oxygen line tropical) 34 6330
P. J., * Wave velocities of oceanic rocks R. J., * Stratospheric aerosols	33 7789	nightglow	7 1174
s, S. H., Acoustic-gravity modes	13 2278	Govindarajan, G., ** Line source	2 393
s, S. H., Ducted gravity models and		Grady, D. E., Spherical wave propagation	8 1299
medium-scale TID	34 8289	Graedel, T. E., * Reply (L) Grafarend, E., ** Geodetic nets	28 6825 26 5887
t, L. A., ** Auroral electric fields and plasmas	1 145		2 375
r-Smith, A. C., Solar cycle control in 27-day	25 5825	Grams, G. W., ** Stratospheric aerosols	33 7789
riation (L)	26 6021	Grard, R. J. L., Satellite photoelectron sheath	16 2885
er, C. W., ** Lasa PeP and P phases er, G. A., ** Earthquake residual displacements	23 5062	Grard, R. J. L., * Errors in electromagnetic wave	25 5505
icks, R. W., * Electric field emissions (L)	1 310	measurements Gray, C. R., ** Stratospheric aerosols	25 5507 6 920
ricks, R. W., * Polar cusp currents, waves, and	17 0177	Green A. E. S., ** Juniter dayslow	16 2812
resistivity	13 2133	Green, A. E. S., ** Jupiter dayglow Green, A. E. S., * Production of CO	24 5284
icks, R. W., ** High-latitude nightside plasma	13 2150	Green, A. E. S., ** Auroral protons in nitrogen Greenberg, J. A., * Groundwater flow	28 6595
nstability ricks, R. W., * Waves in the polar cusp	16 2917	Greenberg, J. A., * Groundwater flow	27 6341
ricks, R. W., ** Substorm studies, 8	16 3119	Greenstadt, E. W., Bow shock nonuniformity (L)	13 2331 25 5813
ricks, R. W., ** Substorm studies, 8 ricks, R. W., ** The polar cusp an, J. W., Jr., * Lunar electric potential	19 3761	Greenstadt, E. W., Jupiter's bow shock (L) Greenwald. R. A., ** Radar doppler spectra (B)	10 1681
an, J. W., Jr., * Lunar electric potential	22 4560	Greenwald, R. A., ** Radar doppler spectra (B) Greenwald, R. A., ** Diffuse radar auroras (L)	22 4797
r, G. D., "" Electric fletas and thunderstorm	27 6359	Greenwald, R. A., * Auroral currents, irregularities,	
lays (B) in, J. H., ** Elements in tektites	8 1245	and luminosity	34 8193
th, R., ** Mariner 9 mission	20 4163	Gregory, J. B., * Further comments on paper by	31 7572
at, it,		Newman and Ferraro (L) Greifinger, C., * Off-meridian wave guide	31. 7572
		propagation	22 4611
the second second		Greifinger, P., ** Off-meridian wave guide	
		propagation	22 4611
	26 5942	Griggs, G. B., * Deep-sea channel	27 6325
ney, E. S., * Spectra of shocked ruby	29 7005	Gringauz, K. I., * Solar plasma observations from	25 5808
ney, E. S., * Low-spin re- in mantic	22 4568	Mars-2 and Mars-3 (L) Grossmann, K. U., ** Thermospheric composition	34 8296
ney, E. S., * Spectra of shocked ruby ney, E. S., * Low-spin Fe ²⁺ in mantle es, E. E., ** Inner belt electrons Chen, T., ** Climate stability	27 6182	Groten, E., * Interaction of tides	35 8519
	19 3894	Guenther, B., ** Ogo 6 airglow observations	28 6662
, R., * Illumination of polar caps by solar	29 6777	Gulbrandsen, A., Coronal 5303, recurrent Storms	20
	28 6773 27 6395	and sector structure (L)	22 4787
Monlinear tides in Small Dasins (D)	2, 0020	Gupta, I. N., Seismic velocities in rock	29 6936
le, S. C., ** Ambiguity assessment of gravity	17 3281	Gurnett, D. A., * Auroral electric fields and	1 145
ner, J. L, ** UV-induced spectra of CO ₂	19 3663	plasmas Gurnett, D. A., ** (S ³ - A) initial results, 8	22 4756
	26 5911	Gurnett, D. A., * Electric field and aurora	31 7306
ett, H. B., ULF plasma sheet fluctuations	19 3799		No. of the
			8897

Gurnett, D. A., * Trapped EM radiation	34 8136	Hein, J. R., Rate of plate movement with time
Gustafsson, G., High-latitude electron precipitation	25 5537	Heinrichs, D. F., Recent cascade lavas
Gutcheck, R. A., * CO fourth positive system	25 5429	Heirtzler, J. R., ** Magnetic smooth zones
Gutowski, P. R., ** Hawaiian linear volcanic chain	8 1361	Helliwell, R. A., * VLF propagation (B)
		Helliwell, R. A., * Cyclotron feedback model
		Helmberger, D. V., ** Upper mantle structure Helmberger, D. V., ** Low-velocity zone variations
		Helmberger, D. V., ** Low-velocity zone variations
		Helmberger, D. V., ** S and ScS observations
	70 7057	Henrist, M., Nitrogen emissions in an aurora (L)
Haagenson, P. L., ** Trace gas concentrations	30 7057	Heppner, J. P., Reply (L) Heppner, J. P., ** Winds above 200 km
Haber, I., ** Theory and simulation of whistler	16 2045	Herman, J. R., Topside Venus ionosphere (B)
turbulence	16 2945	Here W N ** Tuniter's radiation helts
Haber, I., ** Electron-whistler interactions (L)	19 3970	Hess, W. N., ** Jupiter's radiation belts Heuring, F. T., ** Proton pitch angle diffusion
Haerendel, G., ** Drift and deformation of plasma	71 7700	Hewitt, R. G., * Residence times
clouds	31 7389	Heymann, D., ** Cross sections
Hagège, K., * High-frequency turbulence and	10 7006	Higging C H ** Core paradox
micropulsations (D)	19 3806	Higgins, G. H., ** Core paradox Hill, R. D., ** Earthquake lightning (B)
Hagenbuch, K. M., Electron energy relaxation (B)	34 8345	Hill, R. D., Lightning induced by nuclear bursts (B)
Hagiwara, K., ** Sulu and Celebes seas Hagiwara, K., ** Refraction measurements northeast	17 3437	Hills, H. K., ** Lunar electric potential
of New Ireland	75 9657	Hilton, H. H., ** Drift shell splitting
	35 8653 13 2111	Hilton, H. H., * Geomagnetic potential (B)
Hall, F. G., Lunar gas sources	6 969	Hines, C. O., Multilayer analyses
Hall, W. F., ** Microwave radiometry of the sea Hall, W. F., ** Dielectric properties of seawater	27 6301	Hines, C. O., Correction (L)
Halunen, A. J., Jr., * Heat flow in the Pacific	23 5195	Hines, C. O., Reply (L)
Hamasaki, S., Adiabatic gamma (L)	13 2337	Hinton, B. B., ** Gas-surface interactions
Hamilton, W. L., Tidal cycles of volcanic eruptions	17 3363	Hirao, K., ** Energy spectrum of photoelectrons (L)
Han R. Y. * Fountarial Oc(1/An) emission	27 6140	Hirshberg, J., * Sector boundaries (B)
Han, R. Y., * Equatorial $0_2(^1\Delta_g)$ emission Hanel, R., ** Mariner 9 mission	20 4267	Ho, D., Interaction between whistlers and QP
Hanes, J. A., ** Multidomain magnetic behavior in	20 4207	'emissions
rocks	8 1387	Ho, W., * Dielectric properties of seawater
Hanks, T. C., ** Southern California earthquakes	35 8547	Hoch, R. J., ** Hydrogen and SAR arcs (B)
Hanson, J. N., Satellite geodesy	17 3260	Hoch, R. J., * SAR arc observations (L)
Hanson, M. E., * Comment by Hanson et al. (L)	35 8746	Hodges, J. G., ** Polar auroral radar
Hanson, W. B., ** Multilateral temperature comparison	1 197	Hodges, J. C., ** Polar auroral radar Hodges, R. R., Jr., ** Martian eddy diffusion
Hanson, W. B., * Equatorial supercooled plasma (B)	4 751	coefficients
Hanson, W. B., * Large Ni gradients	7 1167	Hodges, R. R., Jr., Exospheric lateral transport
Hanson, W. B., * Equatorial spread F (L)	13 2353	Hodges, R. R., Jr., Helium and hydrogen in the
Hanson, W. B., ** Plasma temperature at low latitudes	25 5597	lunar atmosphere
Hanson, W. B., ** F region irregularities	31 7431	Hoegy, W. R., ** Electron temperature measurements
Harbison, R. N., * Marine geophysical study	2 432	(B)
Harlan, T. P., ** Three ring dating	36 8849	Hoegy, W. R., ** Correction
Harper, R. M., ** F region ion transport	34 8222	Hoffman, R. A., * Substorm electron precipitation
Harries, J. R., ** Electrons during a magnetic		Hoffman, R. A., ** (S3 - A) initial results, 1
storm (L)	34 8381	Hoffman, R. A., ** (S ³ - A) initial results, 1 Hoffman, R. A., ** (S ³ - A) initial results, 4
Harris, I., ** Thermosphere phase anomaly	31 7480	Hoffman, R. A., (S3 - A) initial results, 10
Harris, J. E., Correction (L)	18 3631	Hohl, F., NASA-MPE barium cloud experiment, 7
Harris, K. K., ** Secondary electron emission	7 1145	Holdren, M. W., ** Hydrocarbons in air
Harrison, A. W., * Airglow hydroxyl temperatures (B)	22 4697	Hollister, C. D., ** Properties of sediments
Harrison, C. G. A., * Fracture zones	32 7776	Hollweg, J. V., Alfvén waves
Harriss, R. C., ** Aerosols, clouds, and rain Harriss, R. C., ** Chlorine loss from marine aerosols	6 949	Holway, L. H., Jr., * Heating of lower ionosphere (L)
Harriss, R. C., ** Chlorine loss from marine aerosols	36 8778	Holzer, R. E., ** Plasmaspheric hiss
nart, h. K., Jr., ** Lunar chronology	23 4841	Holzer, T. E., * Reply (L)
Hart, R. S., * S_n velocities Hartle, R. E., ** Interstellar helium ions (L)	2 407	Holzer, T. E., ** Quiet auroral arcs, 1
Hartle, R. E., ** Interstellar helium ions (L)	1 306	Holzer, T. E., * Quiet auroral arcs, 2
Hartle, R. E., ** Martian ionosphere (L)	16 3169	Hones, E. W., Jr., * Plasma sheet variations
Hartle, R. E., * Solar wind electrostatic		nones, E. W., Jr., * Magnetotail plasma flow
instabilities (L)	25 5802	Hones, E. W., Jr., ** Magnetotail and boundary
Hartmann, W. K., Mariner 9 mission	20 4096	layer plasmas
Hartmann, W. K., ** Mariner 9 mission	20 4313	Hopkins, J., Computation of Legendre functions
Hartwig, S., Comment on paper by Poet et al. (L)	30 7155	Hord, C. W., Mariner 9 mission
Harvey, G. A., Meteor abundances	19 3913	Hord, C. W., ** Mariner 9 UV experiment
Harvey, R. B., * Radio noise sources in clouds (B)	12 1944	Horibe, Y., * Oxygen isotope composition
Hashizume, M., Earthquakes on Baffin Island	26 6069	Hotta, H., ** Structure of Southwest Japan margin
Haskell, G. P., ** Low-energy solar protons	4 597	Hotta, H., ** East China Sea - West Phillippine
Havkin, L. P., ** Solar plasma observations from Mars-2 and Mars-3 (L)	25 5000	Sea margin
Hayakawa, S., * Trapped electrons below inner belt	25 5808	Hotta, H., ** Sulu and Celebes seas
Hayakawa, S., * Trapped electrons below inner belt (L)	17 2741	Hotta, H., ** Refraction measurements northeast of
Hays, P. B., * Twilight airglow	13 2341	New Ireland
Hays, P. B., ** Thermospheric wind effects	7 1153	Houghton, R. A., ** Atmospheric CO ₂
Heacock, R. R., * Structured Pc 1 after intense	16 2977	Houtermans, J. C., * Natural radiocarbons
Storms	25 5524	noutz, R., * Antarctic profiler data
Healy, J. H., ** Crustal structure under Lasa	25 5524 35 8721	Howard, C. J., ** Investigation of NO+ + O ₃ → NO ₂ +
Heard, H. C., ** Compression of rocks	26 5922	(L)
Heath, D. F., Ultraviolet variability	16 2779	Howard, H. T., ** Radar investigation of the moon
Hedgecock, P. C., * Heos 2 magnetosheath observations	10 2//9	muska, A., " Boundary of closed field lines (B)
(L)	10 1715	Hruška, A., Acceleration of particles in magnetotail
Hedgecock, P. C., ** Magnetosheath	10 1715 19 3714	
nedgecock. P. C. ** MHD how shock	19 3714	Hubbard, A., ** Recording ocean bottom seismograph
Hedgecock, P. C., ** Bow shock classification Hedgecock, P. C., ** Turbulent bow shock	19 3745	Huey, J. M, * 207pb-206pb isochron
Hedgecock, P. C., ** Turbulent how shock	28 6522	Hufford G I Advection
	10 1688	Hufford, G. L., Advection in Beaufort Sea (B) Hughes, T., Antarctic ice sheet
medin. A. E. * Gas-surface intermedians		the sheet
Heldt, L. E., ** Methane in atmosphere	22 4651	Hughenin R I. Dhotostim to the
	22 4651 24 5265	Huguenin, R. L., Photostimulated oxidation, 1,
Heikkila, W. J., ** Auroras at South Pole and from	22 4651 24 5265	
Isis 1	24 5265	Huguenin, R. L., Photostimulated oxidation, 2
Heikkila, W. J., ** Auroras at South Pole and from		

mausen, A. J., Solar wind structures	13 2035	Railer, R., Childrine 1035 225m months	6 8778
hausen, A. J., ** Flare-associated disturbances	19 3633	Kaiser, M. L., ** Upper hybrid resonance noise	0 1673
hausen, A. J., ** Dynamics and solar wind	28 6469	Value W V ** Correction	4 8412
parameters hausen, A. J., Interplanetary heat conduction	34 7996	Kakinuma, T., ** Solar wind disturbances (L)	4 8364
ins, K., * Undular surges in Seneca Lake	3 539	Kan, J. R., Tail current sheet structures	.9 3773 26 6082
acker, R. D., ** Aurora and ionospheric trough aucker, R. D., ** Trough ion temperatures and	4 648		8 1361
	10 1723		25 5585
drift speed (L) sker, R. D., ** Auroral zone ionosphere eclipse		Karadi. G. M., ** Dispersion in aquifers	3 558
effects	31 7451		4 757 13 2341
, G. R., ** Infrared remote sensing tz, L., * Geomagnetic secular change	23 4983	Katsaros, K. B., * Heat flux from the sea (B)	12 1964
(analysis) (B)	34 8351	Vateufrakie P ** VLF propagation (D)	22 4679
s, R. J., ** Low-energy solar protons	4 597	Katz I ** Enhancement of trapped protons	25 5490 36 8827
		Kaufmann R I * Speed and Unickness of the	
		magnetopause	28 6459 2 478
		Kaula, W. M., ** Analysis of earth's topography Kawasaki, K:, ** Cross correlation between AE and	2 4/0
Province of energy	17 3418	TMF R	4 617
), Propagation of cracks ye, T., * Correction (L)	18 3631	Kayser, W. V., ** Aqueous interface structures (L)	27 6406
T Portis (I.)	27 6404		20 4291 14 2547
ili, Ş. O., ** Atmospheric neutrons	34 7978 33 7931	Vollay W C ** Current density in an aurora	13 2201
f, E. F., Reply (L) ingworth, A. J., Comments on paper by Colgate (L)	18 3628	Kelley M. C., * Two-stream electrostatic wave	
of, W. L., * Inner belt electrons	22 4568	observatory Kellogg, P. J., ** Plasma waves in the ionosphere	13 2214 13 2166
	35 8415.		26 5887
nen, W. G., * Solar proton anisotropies centi, F., ** Tyrrhenian Sea volcanism	7 1019 23 5221	Kelm, R., ** Geodetic nets Kendall, D. J. W., ** Airglow hydroxyl	22 4607
Y. Micropulsation polarization	16 2959	temperatures (B)	22 4697 5 900
cks, B. L., ** Travel times in the Fiji-New	17 7471	Kennedy, G. C., * Core paradox Kennedy, G. C., ** Compressibility of minerals	29 6893
Hebrides region	17 3431	Kennel, C. F., ** Regulation of magnetospheric	
ks, B. L., ** Seismic velocity anomalies in New Hebrides arc	29 6998		16 2837 16 3119
K. Basaltic magma source rocks	2 412	Kennel, C. F., ** Substorm studies, 8	22 4619
er, E. J., ** Detecting short magnetic	29 6977	Kennel, C. F., ** Convective electrojet Kennel, C. F., ** Finite β drift Alfvén instability	
polarity intervals	23 0377	(D)	31 7521 9 1479
		Kenyon, K. E., ** In situ dissolved oxygen (B) Kester, D. R., ** In situ dissolved oxygen (B)	9 1479
		Votahum P D Jr. * Side-looking radar	3 520
son, E. D., ** Apollo 16 rocks	14 2379	vimball D S ** Polar auroral raugr	19 3857 23 4915
	35 8634	ving C A ** Georgia textites	23 4913
	30 7145 14 2403	Kisabeth, J. L., ** Polar electrojet in evening sector	25 5559
son, R. E., ** Brittle fracture in sandstone icke, R., Comments on paper by Remsberg (L)	30 7159	Kisabeth, J. L., * Auroral loops and surges Kivelson, M. G., ** High-latitude nightside plasma	25 5573
L S Carbon monoxide in biosphere	24 5293	Kivelson, M. G., ** High-latitude nightside plasma	13 2150
i R K. * Ion sheet motion	16 2852 22 4578	instability Kivelson, M. G., * Substorm studies, 5	16 3079
s, H. G., Hiss in the dayside cusp s T. C., * Daytime CO ₂ 4,3-micron earth limb		W C * The polar cusp	19 3761 7 1187
	34 8320	Kleckner, E. W., Hydrogen and but	26 5954
es. W. R., ** Beach profiles shidi, E., * Vibrational temperature of N ₂ shidi, E., * Vibrational temperature modeling	9 1462 27 6151	Viain F W * Microearthquakes in iccions	23 5084
shidi, E., * Vibrational temperature of N2	11 1794	Vijore A. J., * Mariner 9 mission	20 4331 20 4352
catis, J. R., ** Irregular surface modeling	34 7978	Kliore, A. J., ** Mariner 9 mission Klitgord, K. D., ** Galapagos spreading center	29 6951
ine, R. L., ** Reply (L)	9 1486 15 2672	Klitgord, K. D., " Galapages Spreading The Klonis H. B. ** Trace gas concentrations	30 7057
une, R. L., ** Temperature in the stratosphere (B) une, R. L., ** Zonal harmonic standing waves	21 4463	Klonis, H. B., ** Trace gas concentrations Klosterman, M. J., * Olivine in meteorites Klostermeyer, J., Comments on paper by Hines (L) Klostermeyer, J., Comments on paper by Hines (L)	32 7581 10 1733
ine, R. L., ** Zonal narmonic standing waves	21 4532	Klostermeyer, J., Comments on paper by Hines (L)	
isen, L. L., ** OH in auroral zone	30 7023 23 4959	Klumpar, D. M., * Atmospheric neutrons and gamma rays Knapp, D. G., ** Geomagnetic secular change	
nsen O. G., ** Predictive filtering	35 8474	(analysis) (K)	34 8351 16 3172
nsen, S. D., * Cation distribution	28 6829	Knott, K., Charging of lunar surface (L)	7 1145
w. H., Reply (L) hnson, A. G., * Pore pressure changes	5 851 23 4938	Knott, K., Charging or limar Surface (H) Knudsen, W. C., * Secondary electron emission Knudsen, W. C., Escape of "He and fast 0 from Mars Knudsen, W. C., Escape of "He and fast 0 from Mars	34 8049
** H., Reply (L) **nson, A. G., * Pore pressure changes *hnson, H. P., * Oxidation of titanomagnetite **mson, R. H., Observations of submarine volcanism	26 6093	Knudsen, w. C., Escape of the Manuschine Color of the Kohlstedt, D. L., ** Dislocation climb in olivine Kohman, T. P., ** 2079b-2069b isochron Kohman, T. P., ** 2079b-2069b isochron observations (L)	26 5961 17 3227
hison, R. H., Observations of submarine volcanism mson, T. V., * Carbonaceous chondrites and			10 1715
	35 8507	Köhn, D., ** Heos 2 magnetosheath observations (L)	13 2341
ranson, W. C., ** 20-Hz to 540-kHz ionospheric	16 2926	v. · · · · · · · · · · · · · · · · · · ·	34 8364 17 3287
fields Minston, H., * Bomb-produced stratospheric NO and	20 2020	Kong, J. A., ** Electric dipole interference patterns	26 5972
0.	27 6107	Kono, M., Duration of volcanism Konradi A * (S ³ -A) initial results, 5	22 4739
shnston, M. J. S., ** Triggering of volcanic	17 3356	Kono, M., Duration or Volcains Konradi, A., * (S ³ -A) initial results, 5 Konradi, A., ** (S ³ -A) initial results, 7 Konradi, A., ** Speed and thickness of the	22 4751
eruptions	16 3150	Konradi, A., ** Speed and thickness of the	28 6459
Athli, J. R., * Solar flare cosmic rays (L) ass, A. V., ** O ₂ 1.27-µ emissions in aurora	34 8305	magnetopause	16 2727
des R W. Seismic properties of fock powers	23 4827	magnetopause Korff, S. A., ** Atmospheric neutrons, 1 Korff, S. A., ** Atmospheric neutrons, 2 Korff, S. A., ** Atmospheric neutrons, 3 ** Townspheric reflectivity	16 2741
ones, D., ** Errors in electromagnetic wave	25 5507	Korff, S. A., ** Atmospheric neutrons, 3	16 2763 19 3903
measurements whee, D. E., ** Comments on paper by N. F. Ness		Kossey, P. A., ** Ionospheric reflectivity	5 851
	22 4803	Kossey, P. A., ** Ionospheric Telectrical Govach, R. L., ** Pore pressure changes Kovach, R. L., ** Wave velocities in granular	
ones T W. * Plasma waves in the ionosphere	13 2166 20 4405		29 6899 13 2337
windan 8 xx Wariber 3 MISSION	16 3194	Materials Krall, N. A., * Adiabatic gamma (L) Kreidler, T. J., ** Mariner 9 mission Kreidler, T. J., ** Mariner 9 mission	20 4117
dge, D. L., ** CO2* 2890-A band (L) ulian, G. M., ** Strontium isotopic ratios	8 1279	Krider, E. P., ** Lightning return stroke	18 3523
uncels P H. * Earthquake residual displacement	23 5062 11 1794	Kreidler, T. J., ** Marine: 5 mills to mill the Krider, E. P., ** Lightning return stroke Krider, E. P., ** Florida lightning return strokes	18 3530
Lukins, J. L., * Irregular surface modeling	11 1/54		0.000
			8899

Krimigis, S. M., ** Synthesis of interplanetary		Leu, LK., ** Caldera collapse
observations	25 5375	Levasseur, A. C., * Equatorial Daimer alpha emission
Krimigis, S. M., * Trapped alpha particles - Quiet		Levine, N. E., Condensation coefficient of water
time	31 7275	Levinthal, E., ** Mariner 9 mission Levy, H., II, Methane, carbon monoxide, and related
Krishen, K., Detection of oil spills (B)	12 1952	species
Krishnan, B. A., ** Electron precipitation into	25 5830	Towis F A ** Radio noise sources in clouds (B)
geomagnetic anomaly (L) Krizek, R. J., * Dispersion in aquifers	3 558	Lewis, E. A., * Ionospheric reflectivity
Krizek, R. J., "Dispersion in Adults' Kubotera, A., ** Sulu and Celebes seas Kubotera, A., ** Refraction measurements northeast of	17 3437	
Kubotera, A., ** Refraction measurements northeast of		Lewis, R. R., * Solar wind parameters at 20 solar
	35 8653	radii (L)
Kulm, L, D., ** Deep-sea channel	27 6325	Leyden, R. L., ** Ganges cone Lezniak, J. A., ** Cosmic ray electrons
	1 71 7 1107	Lezniak, J. A., ** Cosmic ray gradients
Kumar, S., * He II 304-A and He I 584-A dayglow Kumar, S., * Polarization of He I and He II radiation	34 8065	Liang, W., ** Seismic reflection profiling system
Kumer, J. B., ** Polarization of He I and He II	0, 0000	Libby, L. M., * Radiocarbon in tree rings
radiation	34 8065	Libby, L. M., * Radiocarbon in tree rings Libby, L. M., ** Measurement of ¹⁸ 0/ ¹⁶ 0 ratio (B)
Kumer, J. B., ** Daytime CO ₂ 4.3-micron earth limb		Libby, L. M., Radiocarbon dates
fluorescence	34 8320	Liebermann, R. C., * Polymorphic phase
Kummler, R. H., * Carbon-hydrogen chemistry Kummler, R. H., ** Vibrational temperature of N ₂	24 5306	transformations
Kummler, R. H., ** Vibrational temperature of N2	27 6151 20 4267	Liebermann, R. C., Olivine-spinel and olivine-β phase transformations (L)
Kunde, V., ** Mariner 9 mission	5 905	Light, E. S., ** Atmospheric neutrons, 1
Kuo, J. T., ** Oscillation of the inner core	9 1419	Light, E. S., * Atmospheric neutrons, 2
Kuroda, P. K., ** Radiostrontium in rain Kuroda, P. K., ** Chinese nuclear tests	30 7039	Light, E. S., ** Atmospheric neutrons, 3
Kviz, Z., ** Reply (L)	33 7928	Lilley, F. E. M., * Micropulsations recorded by
		array
		Lin, R. P., Comments on paper by Graedel and
		Lanzerotti (L)
		Lin, Y. T., * Lightning return strokes (B) Lincoln, J. V. (Ed.), Geomagnetic and solar data
Laaspere, T., * 20-Hz to 540-kHz ionospheric fields	16 2926	Lincoln, J. V. (Ed.), Geomagnetic and solar data
Labitzke, K., * Satellite-measured radiances	3 483	Lincoln, J. V. (Ed.), Geomagnetic and solar data
Labitzke, K., ** Reply (L)	9 1486	Lincoln, J. V. (Ed.), Geomagnetic and solar data
Labitzke, K., ** Temperature in the stratosphere (B)	15 2672	Lincoln, J. V. (Ed.), Geomagnetic and solar data
Labitzke, K., ** Zonal harmonic standing waves	21 4463	Lincoln, J. V. (Ed.), Geomagnetic and solar data
Labitzke, K., ** Correction (L)	21 4532 5 825	Lincoln, J. V. (Ed.), Geomagnetic and solar data
Lachenbruch, A. H., Gravitational driving force Lachenbruch, A. H., Mechanical model for spreading	5 625	Lincoln, J. V. (Ed.), Geomagnetic and solar data Lincoln, J. V. (Ed.), Geomagnetic and solar data
centers	17 3395	Lincoln, J. V. (Ed.), Geomagnetic and solar data
LaFountain, L. J., ** Brittle fracture in sandstone	14 2403	Lincoln, J. V. (Ed.), Geomagnetic and solar data
Laframboise, J. G., * Comments on paper by Samir and		Lincoln, J. V. (Ed.), Geomagnetic and solar data
Jew (L)	28 6827	Lind, D. L., ** Solar wind electron Ling, J. C., ** Atmospheric gamma rays
Lake, L. R., * Atomic oxygen loss	10 1645	Ling, J. C., ** Atmospheric gamma rays
Lal, D., * Particulate matter in ocean Lal, D., ** Cosmic ray tracks of meteorites (L)	30 7100 34 8356	Linnenbom, V. J., ** Methane in the oceans Linnenbom, V. J., * Ocean as CO source
LaMarche, V. C., Jr., * Tree ring dating	36 8849	Liou, KN., Clouds
Lambeck, K., ** Analysis of earth's topography	2 478	Lister, C. R. B., ** Permeability of a deep-sea core
Lambeck, K., ** Analysis of earth's topography Lambert, G., ** Aerosol radioactivity (B)	27 6377	Liu, HP., ** Phase change in orthoclase
Lambert, R. B., Jr., * In situ dissolved oxygen (B)	9 1479	Liu, LG., Chemistry of the lower mantle
Lamontagne, R. A., * Methane in the oceans Lamontagne, R. A., ** Ocean as CO source	24 5317	Liu, LG., * SrO at high pressure
Lampton, M., ** He II 304-A and He I 584-A dayglow	24 5333	Llewellyn, E. J., ** Mesospheric hydrogen
Landon W F ** NASA_MDF barium cloud experiment 6	7 1107 25 5769	concentrations (L)
Lane, A. L., ** Mariner 9 mission Lane, A. L., ** Mariner 9 UV experiment	20 4279	Lloyd, K. H., * Drift and deformation of plasma clouds
Lane, A. L., ** Mariner 9 UV experiment	22 4547	Lockwood, G. E. K., RF radiation from topside
Lang, 1. E., " Stoping show slab	2 339	sounders
Lang, T. E., ** Snow failure criterion	23 4950	Lockwood, J. A., ** Atmospheric neutrons and gamma
Lanphere, M. A., ** Ages of Alaskan blueschists	8 1383	rays
Lanzerotti, L. J., * ULF power spectra near L = 4, 1 Lanzerotti, L. J., * Solar cosmic ray alpha	19 3816	Lockwood, J. A., * Atmospheric neutrons
particles (B)	19 3935	Lodge, J. P., Jr., ** Trace gas concentrations Logan, L. M., * Infrared remote sensing
Lanzerotti, L. J., Coronal propagation (B)	19 3942	Lomnitz, C., Discontinuity in subduction zones
Lanzerotti, L. J., * ULF geomagnetic power near		Long, R. B., Surface waves
L=4, 2	22 4600	Long, S. A. T., ** NASA-MPE barium cloud experiment
Lanzerotti, L. J., ** Reply (L)	28 6825	Longanecker, G. W., * (S3-A) initial results. 1
Lanzerotti, L. J., * Rise time of solar electron	74 7006	Loomis, T. P., ** Strait of Gibraltar
LaQuey, R., ** Plasma oscillations at 6.6 R _E (L)	34 7986	Lorell, J., * Mariner 9 mission
Lau, J. P., ** Transverse bars	28 6798 15 2656	Løvlie, R., ** Magnetic properties of North Pacific DSDP basalts
Lau, J., * Submarine longshore hars	21 4489	Lowe. R. P. ** Stratospheric mothers
Lauter, C. A., Jr., ** Seismic reflection profiling	22 4403	Lowe, R. P., ** Stratospheric methane Lowrie, W., * Magnetic properties of North Pacific
system	35 8577	DSDP basalts
Laval, G., ** High-frequency turbulence and		Lucas, C., * Wave amplification and particle
micropulsations	19 3806	stability (B)
Lazarus, A. J., ** Abrupt changes in the calculation	34 8314	Ludwig, W. J., * Southwest Japan margin
Lawrence, G. M., * $0(^1S)$ production from 0_2 Lazarus, A. J., ** Abrupt changes in the solar wind Lederberg, J., ** Mariner 9 mission	19 3653 20 4163	Ludwig, W. J., * Southwest Japan margin Ludwig, W. J., ** Structure of Southwest Japan margin
Mee, n. J. "" Magnetosphere of the moon 1	13 2094	Ludwig, W. J., * East China SeaWest Philippine Sea
Lee. K " Convective electroist	22 4619	margin
Lee P D th Vinibilian Jan Nov. 10 cm	12 1948	Ludwig, W. J., ** Sulu and Celebes sees
Leer, E., ** Reply (L) Leiper, W., ** Fe ³⁺ /Fe ²⁺ ratios in titanomagnetites	16 3199	Ludwig, W. J., ** Refraction measurements northeast
Lem, H. Y., ** X ray analysis of balloon-collected	17 3301	or new ireland
Particles erroneously considered as an October		Luhmann, J. G., * Low-energy cosmic ray electrons
Into the lower stratosphere (L)	33 7923	Lui, A. I. I., ** Auroral oval and traveling surge
Leovy, C. B., * Mariner 9 mission	20 4252	(B)
Lepping, R. P., ** Reply (L)	22 4809	Lui, A. T. Y., ** Magnetotail and boundary layer plasmas
Lerman, A., ** Particulate matter in ocean	30 7100	Lukens, H. R., ** Radiocarbon in tree rings
8900		

, k. R., ** Measurement of 180/160 ratio (B)	30 7145	McClure, J. P., ** Equatorial spread F (L)	13 2353
R., ** Auroral particles and electric	10 7076	McClure, J. P., * F region irregularities	21 7431 33 7812
elds (L)	19 3976 7 1007	McConnell, J. C., Atmospheric ammonia McCord. T. B., ** Lunar black spots	26 5867
J. E., * Solar flare propagation J. E., ³ He accretion (B)	34 8330	McCord, T. B., ** Lunar black spots McCracken, K. G., ** Comments on paper by Pyle	34 8409
iyk, B. P., ** Heat flow and plate boundaries iyk, B. P., ** Magnetic smooth zones	14 2537	McCune, J. E., ** Magnetospheric HF waves McDiarmid, I. B., ** Electron pitch angle diffusion	7 1082 10 1608
L. R., * Structure of electron belts	29 6985 13 2142	McDiarmid, I. B., ** Boundary of closed field	
L. R., * Structure of electron belts L. R., Pitch angle diffusion in radiation		lines (B)	13 2311
inits (L)	28 6793	McDonald, W., ** Recording ocean bottom seismograph (L)	35 8748
		McFlroy M R ** Stratospheric mixing	15 2619
		McEwan, M, J., ** $O(^{1}S)$ production from O_2	34 8314 11 1833
· ·		McGetchin, T. R., * Carbonatite-kimberlite relations	11 1854
, S., Ascending primary magmas	29 6877	McGetchin, T. R., * Xenoliths in maars and diatremes McGetchin, T. R., * Carbonatite-kimberlite relations McGetchin, T. R., * Correction (L)	32 7788
mald, K. C., * Heat flow and plate boundaries mald, N. J., ** Cyclones and anticyclones (B)	14 2537	McGovern, W. E., Atmospheric composition (B)	1 274 7 1239
ald. N. J., ** Reply (L)	15 2685 30 7163	McKibben, R. B., Reply (L) McKibben, R. B., Azimuthal propagation of solar	
ald, N. J., ** Reply (L) nan, C. G., ** Solar cosmic ray alpha	10 5075	protons	31 7184 18 3523
<pre></pre>	19 3935 34 8391	McLain, D. K., ** Lightńing return stroke McLain, D. K., ** Florida lightning return strokes	18 3530
J. E., Diffusion of ring current particles	0 7 0001	McMahon, B. E., ** Paleomagnetism of Green River	
3)	28 6749	sediments	23 5237 9 1449
re, W., ** Mariner 9 mission , M. C., ** Mariner 9 mission	20 4267 20 4197	McNally, G. J., ** Oceanographic flow sensors McNeal, R. J., ** No vibrational temperature (L)	7 1225
P. E., * Reconnaissance of the western		McNeal, R. J., ** N ₂ vibrational temperature (L) McPherron, R. L., ** Semiannual variation	1 92
wman ridge	32 7769	McPherron, R. L., Substorm studies, I	16 3044 16 3054
o, T., ** Radon and thoron exhalation la, M. E., ** Magnesium to chlorinity ratios	11 1804	McPherron, R. L., * Substorm studies, 2 McPherron, R. L., * Substorm studies, 4	16 3068
n sea water (B)	18 3621	McPherron, R. L., * Substorm studies, 9 McPherron, R. L., ** Tail lobe magnetic variations	16 3131
ti, P., ** Neogene Carpathian arc	23 5025	McPherron, R. L., ** Tail lobe magnetic variations McPherron, R. L., ** Micropulsations in the morning	34 8087
ng, E. R., * NASA-MPE barium cloud xperiment, 4	25 5745	sector	34 8180
n, A. H., ** Further comments on paper by		Mead, G. D., * Jupiter's radiation belts	16 2793 27 6140
ewman and Fertaro (L)	31 7572	Megill, L. R., ** Equatorial $O_2(^1\Delta_q)$ emission Megrue, G. H., Spatial 40 Ar/ 39 Ar ages	17 3216
hero, R., ** Heos 2 magnetosheath observations	10 1715	Megrue, G. H., Origin of lunar gases	23 4875
. s, F. A., ** Thermospheric density variations	19 3841	Megumi, K., * Radon and thoron exhalation	11 1804 6 977
(c), A., * Comments on paper by Poet et al. (L)	30 7149 22 4535	Mei, C. C., Shoaling waves Meidav, M., ** Sidereal periodicity in earthquake	
vi, F., ** Interplanetary shock waves ani, F., * Occurrence rate of discontinuities	34 8011	occurrences	32 7709
on, R., ** Vertical potential in lower	01 4507	Meier, R. R., * Tropical UV arcs (L) Meltz, G., ** Heating of lower ionosphere (L)	16 3189 34 8402
* * Comments on paper by Holmes et al.	21 4526 17 3517	Meltzer, M., ** Propagation of sound waves	8 1293
M, M. S., * Comments on paper by Holmes et al.	35 8721	Menard, H. W., Drifting islands	23 5128 25 5 75 1
ell, E. A., ** Aerosol residence times ell, E. A., ** Reply (L)	30 7065	Mende, S. B., NASA-MPE barium cloud experiment, 5 Mende, S. B., ** Substorm effects in auroral	25 5/51
ell, E. A., ** Reply (L)	30 7153 30 7157	spectra (B)	31 7515
ens, C. S., * Aerosols, clouds, and rain	6 949	Mendell, R. B., ** Atmospheric neutrons, 1	16 2727 16 2741
eens, C. S., * Chlorine loss from marine aerosols	36 8778 36 8867	Mendell, R. B., ** Atmospheric neutrons, 2 Mendell, R. B., * Atmospheric neutrons, 3	16 2763
.ens, C. S., Puerto Rican aerosols (B)	27 6212	Meng, CI., * Cross correlation between AE and	4 617
tin, R. N., * Abrupt changes in the solar wind	19 3653	IMF B_g Meng, CI., ** Nightside ionosphere during substorms	19 3828
se R. P., Shear velocity of the Canadian shield	29 6943 14 2498	Meng, CI., ** Auroral substorms (B)	31 7490
singill, J. V., * Mexican ridges wrsky, H., Mariner 9 mission	20 4009	Meriwether. J. W * Winds above 200 Km	28 6643 16 2727
ursky, H., ** Mariner 9 mission ursky, H., ** Mariner 9 mission	20 4031	Merker, M., * Atmospheric neutrons, 1 Merker, M., ** Atmospheric neutrons, 2	16 2741
ursky, H., ** Mariner 9 mission	20 4117 31 7539	Markon M ** Atmospheric Deutrons, 5	16 2763
hews, D. L., * Electron precipitation at $L=6$ (L) hews, J. D., ** Nighttime E region conductivities	31 7461	Merrill, R. T., ** Oxidation of titanomagnetite Merritt, D. C., ** Stratospheric aerosols	23 4938 6 920
hews, J. D., * D region scattering	34 8266	Metzler, N., ** Interplanetary field fluctuations	
hews, T., August 7, 1972 solar flare (L) sushita, S., ** Polar cap sector field	31 7537 13 2079	(L)	16 3167 33 7917
versberger, K., * Comments on paper by Giraud		Meyer, R. E., Lee waves and windward modes Meyer, R. P., ** Central North American rift	55 7517
0 01 (I)	1 330 17 3356	evetom 1	23 5173
1k, F. J., * Triggering of volcanic eruptions	12 1909	Michael, J. A., ** Swell near Aruba	28 6595
.1 G. A., * Ocean surface temperature rer, R. H., * Pitch angle distribution of solar			30 7039
particles	1 29		11 1794 21 4499
vridis, L. N., * Terrestrial refraction	15 2679	Millero, F. J., * Heat capacity of seawater	30 7122
Thessaloniki (B) ymard, N. C., * Auroral particles and electric		Miller, G. W., "Heat capacity of seawater Millero, F. J., * Heat capacity of seawater Millero, F. J., ** P-V-T properties of water Milton, D. J., Mariner 9 mission	20 4037
fields (L)	19 3976 22 4745		20 4291
mard, N. C., * (S ³ -A) initial results, 6 vr, H. G., ** Equatorial thermosphere (B)	10 1688	Minkoff, J., Aspect-dependent ionospheric radar scatter	19 3865
we U C Magnetic Storm Characteristics	13 2251	Minkoff, J., Limitations on ionospheric scattering	34 8399
yr, H. G., ** Thermospheric Semiannual	19 3991	measurements (L) Misra, R. K., Equatorial spread F characteristics	34 0333
effect (L) vr, H. G., ** Thermosphere probe measurements	25 5687		25 5703
YT. H. G. * Thermosphere phase anomaly	31 7480 30 7057	n r Coutheastern Missouri earthquake	5 886 26 6009
Deth, R. B., ** Trace gas concentrations Uamy, K., ** Enhancement of long-period signals	17 3505	Mitchell, B. J., * S and SoS observations Mitchell, J. K., ** Groundwater flow Mitchell, J. K., ** Groundwater flow	27 6341
Camy, K., ** Recording ocean bottom seismograph			12 1917
(L)	35 8748 20 4123		6 1058
Cauley, J. F., Mariner 9 mission Clure, J. P., * Multilateral temperature	20 ,120	Mizera, P. F., * King Christ parallel Page 1200 kilometers Moe, K., Density and composition, 80-200 kilometers Moffett, R. J., ** Equatorial supercooled plasma (B)	4 751
Comparisons	1 197	MOLLECT, No Ovy	
			8901

		Maini D D * Canges CODE
Moffett, R. J., ** Plasma temperature at low	25 5597	Naini, B. R., * Ganges cone Nakata, G. M., ** Mariner 9 mission
1 add tradec	29 7020	Nambu M. Plasma instability at (2 + 2) We (4)
Mohr, P. A., Comments on paper by Megrue et al. (L)	18 3617	Nambu, M., Ring current proton loss (L)
Moler, W. F., ELF (B)	13 2017	Nash, D. B., Moon rock luminescence
Moler, W. F., ELF (B) Montgomery, M. D., ** Double ion streams Montgomery, M. D., ** Substorm studies, 2	16 3054	Nason, R., * Fault creep events
Montgomery, M. D., ** Solar wind electrons Montgomery, M. D., ** Solar wind proton anisotropy Montgomery, M. D., ** Solar wind proton anisotropy	19 3697	Neal, V. T., * Anomalies in the Arctic Ocean (B)
Montgomery, M. D., ** Solar wind proton anisotropy	28 6451	Negi, J. G., * Ambiguity assessment of gravity
Moore, C. B., ** Recordings of lightning	21 4515	interpretation Nelson, A. R., * Collision of suspended water
finches (R)	21 4515	
Moore, C. B., ** Vertical potential in lower	21 4526	Neshyba, S., ** Anomalies in the Arctic Ocean (B)
atmosphere (B)	9 1419	Ness, N. F., ** Interplanetary magnetic B_{θ}
Moore, D. T., ** Radiostrontium in rain	30 7039	Ness, N. F., Magnetometer signal enhancement (L)
Moore, D. T., * Chinese nuclear tests Moore, H. E., * Aerosol residence times	30 7065	Ness N. F. ** Interplanetary shock waves
Moore, H. E., * Reply (L)	30 7153	Ness, N. F., * Reply (L)
	30 7157	Ness, N. F., ** Occurrence rate or discontinuities
Moore, H. E., * Kepiy (L) Moore, W. S., * Radium extractions on fibers (B) Moos, H. W., ** FUV dawn airglo	36 8880	Neubauer, F. M., ** Reply (L)
Moos, H. W., ** FUV dawn airglow	1 258 34 8033	Neugebauer, G., ** Mariner 9 mission Neugebauer, M., ** High-latitude nightside plasma
	19 3714	inctohility
Moreno, G., ** Magnetosheath	19 3731	Neugebauer, M., ** The polar cusp Neugebauer, M., ** Shock system of February 2, 1969
Moreno, G., ** MHD bow shock Morfill, G., Nonadiabatic particle motion	4 588	Neugebauer, M., ** Shock system of February 2, 1969
Morfill G. ** Low-energy solar protons	4 597	Neuss, H., ** NASA-MPE barium cloud experiment, 1
Morfill, G., ** Low-energy solar protons Morfill, G., * Illumination models	25 5449	Newman, D. B., Jr., * Partial reflection
Morgan. C. G., ** ULF geomagnetic power near L = 4, 2	22 4600	experiment (L)
Morris A I ** Trace das concentrations	30 7057	Newton, G. P., * Temperatures from density scale
Morse, D. L., * Simulated plasma clouds	31 7417	heights
Moses, H. E., Atmospheric rotation	27 6195	Newton, G. P., * Thermosphere probe measurements Nielson, D. R., * Potassium content and depth to
Moses, H. E., ** Periodic phenomena	27 6199	the seismic zone
Mosler, S. R., * Upper hybrid resonance noise Moyers, J. L., ** Halogens in the Antarctic	77 7002	Niemann, H. B., * Thermospheric composition
Moyers, J. L., ** Halogens in the Antarctic	33 7802 4 630	Nier, A. O., ** Comments on paper by Giraud
Mozer, F. S., * Electric field and electrons	10 1719	et al. (L)
Mozer, F. S., Substorms and convection (L) Mozer, F. S., ** Current density in an aurora	13 2201	Nier, A. O., ** Atomic oxygen loss
Mozer, F. S., ** Two-stream electrostatic wave		Nikhanj, Y. S., ** Carbonatite-kimberlite relations
observatory	13 2214	Nikhanj, Y. S., ** Correction (L)
Mozer, F. S., * NASA-MPE barium cloud experiment, 3 Mozer, F. S., ** Barium cloud electric fields	25 5736	Nisbet, J. S., ** Correlations of ionospheric and
Mozer, F. S., ** Barium cloud electric fields	28 6634	solar measurements (B) Nisbet, J. S., ** EUV and incoherent scatter
Mozer, F. S., * Polar cap convection (L)	28 6784	measurements
Mozer, F. S., ** Energetic proton injection	34 8113	Nisbet, J. S., ** Comparison of photoelectron
Mozer, F. S., ** Particle decreases at the	34 8119	calculations
synchronous orbit Mudie, J. D., ** Gorda rise	35 8665	Nisbet, J. S., ** Neutral density models (B)
Mukai, T., * Energy spectrum of photoelectrons (L)	34 8395	Nishida, A., * Neutral line in the magnetotail
Mukherjee, N. R., * Water on the moon	11 1741	Nishimura, K., ** Trapped electrons below inner
Mukherjee, N. R., ** Solar wind-mercury interaction		belt (L)
(L)	19 3961	Nitsan, U., Viscous heat production
Muldrew, D. B., ** Lunar effect in conjugate echoes	34 8251	Noland, M., ** Mariner 9 mission Norberg, W., ** Sea ice
Mulholland, C., ** Mariner 9 mission	20 4436	Northrop, J., Cannikin explosion
Muller, G., Amplitude studies of core phases	17 3469	Northrop, J., Correction (L)
Muller, R. A., ** Geomagnetic cutoffs and subcutoff fluxes	10 1515	Northrop, T. G., * Binary index criterion (B)
Mullins, C. E., * Magnetite and maghemite	5 804	Noson, L., ** Paleomagnetism in the central Cascades
Munasinghe, M., * Rayleigh wave scattering	14 2454	Nougier, J., ** Indian ocean secular variation
Munch, G., ** Mariner 9 mission	20 4291	Noyce, J. R., * Radiostrontium in rain
Murakami, T., ** Trapped electrons below inner		Nur, A., ** Pore pressure changes
belt (L)	13 2341	Nur, A., ** Effective stress laws Nur, A., ** Wave velocities in granular materials
Murauchi, S., ** Southwest Japan margin	14 2508	Nuttli, O. W., Seismic wave attenuation
Murauchi, S., ** Structure of southwest Japan margin Murauchi, S., ** East China Sea-West Phillippine	14 2517	
Sea margin	14 2526	
Murauchi, S., * Sulu and Celebes seas	17 3437	
Murauchi, S., * Refraction measurements northeast		
of New Ireland	35 8653	Others was to discount to the state of the s
Murcray, D. G., ** Vertical distribution of CO	24 5273	O'Brien, K., * Galactic cosmic ray modulation (B)
Murcray, D. G., * Nitric acid in stratosphere	30 7033	Ocola, L. C., * Central North American rift system,
Murcray, F. H., ** Vertical distribution of CO	24 5273	Odencrantz, F. K., Ice whiskers and snowflakes
raicray, r. n., " Nitric acid in Stratosphere	30 7033	Oeschger, H., ** Natural radiocarbons Offermann, D., * Atomic oxygen in lower thermosphere
Murphy, R. E., ** OH in auroral zone Murray, B. C., ** Mariner 9 mission	30 7023	Offermann, D., * Thermospheric composition
Murty, T. S., ** Oceanic fronts	20 4197 3 549	Ogawa, M., ** Photodissociation continuums of
Musatov, I. S., ** Solar plasma observations from	3 349	N ₂ and O ₂
Mars-2 and Mars-3 (L)	25 5808	N ₂ and O ₂ Ogawa, M., ** CO ₂ + 2890-A band (L) Declinan H. Atmospheric light value (P)
Mysen, B. O., ** Water fugacity and oxygen fugacity	26 5898	ogorman, m, remospheric right purses (b)
		Ogilvie, K. W., ** Interstellar helium ions (L)
		Ogilvie, K. W., ** Solar wind temperature and speed
		Ogilvie, K. W., ** Solar wind electron Ogita, N., ** Anisotropies during Forbush decreases
		Oguti, T., Hydrogen emission and electron aurora (L)
		O'Keefe, J. A., III, * Tektite ablation (B)
Nagase, F., ** Trapped electrons below inner		
had a series of the series of		U'Leary, B., * Apollo 12 moon samples
belt (L)	13 2341	O'Leary, B., * Apollo 12 moon samples Oliver, J., ** Predicting earthquake locations
belt (L) Nagayama, N., ** Neutral line in the magnetotail	19 3782	Oliver, J., ** Predicting earthquake locations Oliver, J., ** Travel times in the Fiji-New Hebrides
belt (L) Nagayama, N., ** Neutral line in the magnetotail Nagy, A. F., ** Multilateral temperature comparisons	19 3782 1 197	Oliver, J., ** Predicting earthquake locations Oliver, J., ** Travel times in the Fiji-New Hebrides region
belt (L) Nagayama, N., ** Neutral line in the magnetotail Nagy, A. F., ** Multilateral temperature comparisons Nagy, A. F., ** Equatorial supercooled plasma (R)	19 3782	Oliver, J., ** Predicting earthquake locations Oliver, J., ** Travel times in the Fiji-New Hebrides region Oliver, J., ** Seismic velocity anomalies in
belt (L) Nagayama, N., ** Neutral line in the magnetotail Nagy, A. F., ** Multilateral temperature comparisons Nagy, A. F., ** Equatorial supercooled plasma (B) Nagy, A. F., ** Comparison of photoelectron calculations	19 3782 1 197 4 751	Oliver, J., ** Predicting earthquake locations Oliver, J., ** Travel times in the Fiji-New Hebrides region Oliver, J., ** Seismic velocity anomalies in New Hebrides arc
belt (L) Nagayama, N., ** Neutral line in the magnetotail Nagy, A. F., ** Multilateral temperature comparisons Nagy, A. F., ** Equatorial supercooled plasma (B) Nagy, A. F., ** Comparison of photoelectron	19 3782 1 197	Oliver, J., ** Predicting earthquake locations Oliver, J., ** Travel times in the Fiji-New Hebrides region Oliver, J., ** Seismic velocity anomalies in

a w T V ** Bonotion of O with W (I)	20 6010	Potschok A C ** Commont by Hanson et al (I.)	35 8746
Mey, T. F., ** Reaction of O ₂ with N ₂ (L)	28 6818		10 1563
B., ** Tropical UV arcs (L) e, N, D., ** Magnetic properties of oceanic	16 3189	Dhilling D I * Constal structure of Mare	23 4815
e, N. D., "" magnetic properties of oceanic	07 5770	Phillips, R. J., * Crustal structure of Mars	7 1115
ncks	23 5139	Phissamay, B., ** Solar Lyman α and hydrogen exobase Pierce, A. D., ** Reply (L)	33 7931
e, N. D., Magnetic properties of North Pacific		Pierce, A. D., ** Reply (L)	
SDP basalts	32 7647	Pieters, C., * Lunar black spots	26 5867
(Si, I., * Breaking of internal gravity waves (J. F., ** Cosmic ray electrons above 10 Gev 1e, H. D., * Atmospheric electricity in clouds	36 8808	Pieters, C., * Lunar black spots Pike, C. P., ** FLIZ-red band-auroral oval	19 3848
. F., ** Cosmic ray electrons above 10 Gev	31 7165	Pilbeam, C. C., * Granular aggregates	5 810
1e. H. D., * Atmospheric electricity in clouds		Pilbeam, C. C., * Granular aggregates Pilbeam, C. C., * Contact thermal conductivity in	
R)	21 4508	lunar aggregates	23 5233
te, R. E., * Lightning flash (B)	21 4520	Pilipp, W. G., ** Solar wind instabilities (B)	28 6737
JW, S. L., * Proton scattering near bow shock	4 607	Pilson, M. E. Q., ** In situ dissolved oxygen (B)	9 1479
ow, S. L., * Theory and simulation of whistler		Pirraglia I ** Mariner Q mission	20 4267
urbulence	16 2945	Pizzo, V., ** Solar wind proton temperatures Pizzo, V., * Dynamics and solar wind parameters	13 2001
ow, S. L., * Electron-whistler interactions (L)	19 3970	Pizzo, V., * Dynamics and solar wind parameters	28 6469
1. ** Theory and simulation of whistler		Plank, W. S., ** Cromwell current (B)	15 2708
	16 2945	Plank, W. S., * Suspended matter	30 7113
urbulence	19 3970	Poehls K A * Magnetic smooth zones	29 6985
f., ** Electron-whistler interactions (L)	31 7558	Poet, S. E., ** Aerosol residence times Poet, S. E., ** Reply (L) Poet, S. E., ** Reply (L)	30 7065
R. W., ** SAR arc observations (L)	D1 7000	Poet. S. E., ** Renly (L)	30 7153
		Poet, S. E., ** Renly (L)	30 7157
		Pogue, R., ** Trace gas concentrations	30 7057
		Pollack, H. N., Gravitational potential	11 1760
		Pollack, H. N., Longman tidal formulas	14 2598
D. E., ** Heos 2 magnetosheath observations		Pollack I R ** Mariner O mission	20 4163
	10 1715	Pollack, J. B., ** Mariner 9 mission Pollack, J. B., * Mariner 9 mission	20 4313
** Cromwell current (B)	15 2708	Pollack, J. B., ** Stratospheric aerosols	30 7051
H., ** Suspended matter	30 7113	Pollock W H ** Troposphoric corecel	27 6249
n., Suspended marcol	33 7845	Pollock, W. H., ** Tropospheric aerosol	27 0243
M., * Cromwell current son, G., Comments on paper by Johnson et al. (L)		Pomerantz, M. A., ** Pitch angle distribution of	1 29
P. M. * Everitation of ion reconstructs	34 8167	solar particles	1 29
r, F. H., * Excitation of ion resonances	18 3585	Pomerantz, M. A., ** Cosmic rays from solar	71 7205
er, M. D., Lake Untario	19 3714		31 7205
cotto, F., ** Magnetosheath	19 3731	Porter, L. E., ** Photoabsorption cross sections	10 1627
n otto, F., ** MHD bow snock	10 0.01	Posey, J. W., * Reply (L)	33 7931
t, B. I., * Experimental test of Lomnitz's	26 6097	Potemra, T. A., * VLF and electron precipitation Potemra, T. A., ** HF absorption during PCA	10 1572
theory	20 0037	Potemra, T. A., ** HF absorption during PCA	
dimitriou, A. L., ** Terrestrial refraction	15 2679	events (L)	25 5818
Thessaloniki (B)	13 2073	Powell, J. R., ** Earthquake lightning (B)	6 992
giannis, M. D., Solar wind torque on tilted	34 7968	Pradhan, S. M., * Vertical movement of sporadic E (L)	7 1232
mamatashhere		Prasad, S. S., ** Ionospheric slab thickness (L) Prasad, S. S., * Electron cooling by 02	25 5837
by, B., * (S3-A) initial results, 9	22 4765	Prasad, S. S., * Electron cooling by O ₂	28 6701
sce, F., * He II 304-A night glow	1 71	Prescott, W. H., Geodolite distance measurements	26 6001
by, B., * (S ³ -A) initial results, 9 see, F., * He II 304-A night glow sece, F., ** Polarization of He I and He II	74 0065	Press, F., ** S _n velocities Pringle, J. E., * Atmospheric electricity in clouds	2 407
radiation	34 8065	Pringle, J. E., * Atmospheric electricity in clouds	
c C Depletion of plasmasphere	4 672	(B)	21 4508
C. G., * Nightside ionosphere during substorms C. G., * Thundercloud electric fields	19 3828	Pushkar, P., * Strontium isotopic ratios	8 1279
C. G. * Thundercloud electric fields	28 6623	Pyle, K. R., Propagation anisotropies	1 12
D., Field due to a horizontal current (B)	16 3040		
C V ** Substorm Studies. 4	16 3054		
rulescu, A., ** Seismic reflection profiling			
Fire t om	35 8577		
cal, G., ** Travel times in the Fiji-New Hebrides		- th Maniage O mission	20 4163
region	17 3431	Quam, L., ** Mariner 9 mission	27 6199
cal, G., * Seismic velocity anomalies in		Quesada, A. F., ** Periodic phenomena	27 0100
	29 6928		
New Hebrides are firmack, T., ** Compressibility of minerals ie, J. B., ** Trace gas concentrations ie, J. B., ** Alaba particle experiment	29 6893		
T P ** Trace gas concentrations	30 7057		
	5 781		
	25 5745	T Fruthaughs course dimension	14 2609
tzert, W. C., Current measurements around islands		Randall, M. J., Earthquake source dimension	30 7139
	33 7919	Randhawa. J. S., ECTIPSE effect on Strategy	3 549
(B) vulikas, G. A., ** Inner zone alpha particles	25 5498		1 191
zich, P. M., ** Birkeland currents and particle			34 8409
cich, P. M., " Birketand Currents and partition	4 640	Rao, U. R., * Comments on paper by ryle (b)	17 3497
fluxes	4 577	Rao, M., * Comments on paper by Pyle (L) Rapp, R. H., Potential coefficient models Rapp, R. H., Potential coefficient models	32 7589
GROCK, D. S., ** Forbush predecrease	20 4267	Rapp, R. H., Undulation computations Rapp, R. H., Undulation computations	19 3903
	32 7786	Rapp, R. H., Undulation computations of the Rasmussen, J. E., ** Ionospheric reflectivity Rasmussen, R. A., ** Hydrocarbons in air Rasmussen, R. T. Honorad, Birkeland currents (L)	24 5345
wareon W C * Permeability of a deep sou our		Rasmussen, R. A., ** Hydrocarbons in air	31 7553
eddie, N. W., ** Geomagnetic Securar change	34 8351	Rassbach, M. E., Upward Birkeland currents (L)	16 3007
(analysis) (R)	15 2630	Rasmussen, R. A., ** hydrocarbons in all Rassbach, M. E., Upward Birkeland currents (L) Rastogi, R. G., ** Ionospheric irregularities The Rastogi, R. G., ** Ionospheric irregularities	21 4472
existing a structure of Polymylarions.			22 4568
ellat, R., ** Fine structure of PC 1 pursations,	16 3176	Reagan, J. B., ** Inner belt electrons	13 2176
2 (T.)		Reagan, J. B., ** Inner belt electrons Reagan, J. B., ** Ener belt electrons Reasoner, D. L., * Backscattered auroral electrons	25 5477
llat, R., ** High-frequency turbulence and	19 3806	Reasoner. D. L., " Storm effects at 00 1g	25 5844
micropulsations	23 5025		28 6790
tel c ** Neogene Carpathian arc		Reasoner, D. L., ** Plasma flow in neutral sheet (L) Reasoner, D. L., ** Plasma sheet at lunar distance Reasoner, D. L., ** Plasma sheet at lunar distance	
D. T., ** Temperatures from density scale	4 725	Reasoner, D. L., ** Plasma sheet at lunar distance	34 8097
haighte	7 720	Reber, C. A., * Thermospheric wind effects	16 2977
mypacker, C. R., * Geomagnetic cutoffs and	10 1515	Reed, E. I., ** Equatorial airglow	22 4630
	10 1711	Reasoner, D. L., "* Flasma sheet at the transfer of the Reber, C. A., * Thermospheric wind effects Reed, E. I., * Equatorial airglow Reed, E. I., * Low-latitude 6300-A nightglow Reed, E. I., * Low-nation namer by Pierce et al.	25 5658
Totale H Solar Wind-moon interaction (b)	1 218	Reed, J. W., Comments on paper by Pierce et al.	33 7929
		naments on paper by van Loon et al. (2)	9 1484
rkins, F. W., * Plasma clouds in the ionosphere, 1	4 697	Reed, R. K., ** Oceanic rainfall	6 941
	2 4 711	Reed, R. K., ** Oceanic rainfall Reed, R. K., * Precipitation in the North Pacific	30 7087
			26 5847
Trat W D Saismic energies of Capitosan	32 7717	Reedy, R. C., * Y ray emission spectra Rees, M. H., * Auroral electron spectra (L) Responsible to the spectra (R)	34 8391
cron, G., ** Heat capacity of seawater	21 4499		36 8880
terson J. J. ** Wave velocities of oceanic rocks	23 5155	Reiter M. A. * Heat flow in Southwestern virginia	8 1323
terson L. E., * Atmospheric gamma rays	34 7942 4 659	Reiter, R., Stratospheric air	27 6167
intensities			
terson R. W. ** Conjugate auroral intensities	4 055		8007
terson, J. J., ** Mave velocities of oceanic rocks terson, J. J., ** Mave velocities of oceanic rocks terson, L. E., * Atmospheric gamma rays terson, R. W., ** Conjugate auroral intensities	4 033		8903

Reme, H., * Auroral electron precipitation	25 5553	Sakajiri, N., ** Structure of southwest Japan
Remsberg, E. E., Stratospheric aerosol	9 1401	margin Sakajiri, N., ** East China SeaWest Philippine
Benchang E E Renly (L)	7 1219	Sea margin
Rense, W. A., ** Solar EUV absorption (E)	7 1219 8 1308	Sea margin Salas, L. J., ** Ancient atmospheres in ice
Reynolds, M. A., ** Keyes chondrite Reynolds, R. T., ** Convection in the moon	17 3203	Salichury J. W. ** Intrared remote Sensing
Pich E I ** Storm effects at 60 Rm	25 5477	Salu, Y., ** Nonlinear whistler instability (L)
Rich, F. J., * Plasma sheet at lunar distance	34 8097	Colu V ** Cold blasma and whistler instability
Richter, F. M., Convection in the mantle	35 8735	Samson, J. A. R., * UV-induced spectra of CO ₂ Sanatani, S., ** Large N _i gradients
Rickett, B. J., Density irregularities in the solar	20 2545	Sanatani, S., ** Large N; gradients
wind	10 1543	Sanatani, S., ** Plasma temperature at low latitudes Sandel, B. R., ** Birkeland currents and particle
Ridge, D. L., ** NASA-MPE barium cloud experiment, 6	25 5769	fluves
Rinehart, G. S., * Visibility data, New Mexico (B) Ringwood, A. E., ** Polymorphic phase transformations	12 1948 29 6926	fluxes Sanford, A. R., ** Comment by Hanson et al. (L)
	19 3816	Sanford, A. R., ** Comment by Hanson et al. (L) Saunders, R. S., ** Mariner 9 mission
Robbins, R. C., * Ancient atmospheres in ice	24 5341	Sari, J. W., ** Interplanetary magnetic fluctuations
Robertson, J. D., ** Strait of Gibraltar	8 1372	(B)
D. I. D. V. E. Effective pressure	14 2434	Sastry, T. S. G., Geomagnetic variation during
Robinson, E., ** Ancient atmospheres in ice	24 5341	July 1966 flare (B) Sato, T., Unified theory of electrojet irregularities
Robinson, E., ** Ancient atmospheres in ice Robinson, E., * Hydrocarbons in air	24 5345	Sato, T., * Oniet auroral arcs. 1
Roble, R. G., * Global mean thermospheric	1 249	Sato, T., * Quiet auroral arcs, 1 Sato, T., ** Quiet auroral arcs, 2
temperature Rockstroh, J. M., ** Cosmic ray electrons	1 1	
Roeder, D. H., Subduction and orogeny	23 5005	Savage, J. C., * Relative plate motion Savage, J. C., * Geodolite distance measurements
Roederer, J. G., * Drift shell splitting	1 133	Savage, J. C., * Geodolite distance measurements
Roederer, J. G., ** NASA-MPE barium cloud		Savage, J. C., "" Experimental test of Loudille 5
experiment, 8	25 5795	theory Sawada, T., ** Production of CO
Roelof, E. C., * Synthesis of interplanetary	25 5 7 7 5	Scarf. F. L., ** Electric field emissions (L)
observations	25 5375 27 6277	Scarf, F. L., * Density enhancements and whistlers
Roether, W., ** Bomb radio nuclides Rogers, J. W., * OH in auroral zone	30 7023	Scarf, F. L., * Density enhancements and whistlers Scarf, F. L., ** Polar cusp currents, waves, and
Rognlien, T. D., * Gradient drift instability in	10 ,013	resistivity
equatorial electrojet (L)	28 6808	Scarf, F. L., * High-latitude nightside plasma
Rohrbaugh, J. L., * Correlations of ionospheric and		instability
solar measurements (B)	1 281	Scarf, F. L., * Substorm studies, 8 Scarf, F. L., ** The polar cusp
Rohrbaugh, R. P., * Neutral density models (B)	28 6768	Schafer, F. J., ** Mariner 9 mission
Rona, P. A., * Seismic reflection profiling system Rosen, R. D., ** Kinetic energy in atmosphere	35 8577 15 2630	Schatten, K. H., ** Reply (L)
	1 51	Scheidegger, K. F., Magmas along mid-ocean ridges
Rosenberg, R. L., * Interplanetary magnetic B_{θ} Rosenberg, T. J., ** VLF and electron precipitation	10 1572	Schlemmer, F. C., II, ** Particles in surface waters
Ross, B. B., ** Breaking of internal gravity waves	36 8808	Schmidt, M. J., * Farley-Buneman instability
Rostoker, G., ** Drifting auroral arcs	7 1100	Schmitt, G. A., ** Thermospheric composition
Ross, B. B., ** Breaking of internal gravity waves Rostoker, G., ** Drifting auroral arcs Rostoker, G., * Polar electrojet in evening sector Rostoker, G., ** Auroral loops and surges	25 5559	Schmitt, G. A., ** Gas-surface interactions Schmugge, J. T., ** Sea ice
Roth I ** Mariner O mission	25 5573	Schneider, S. H., * Climate stability
Koth, J., ** Mariner 9 mission	20 4436 25 5490	Schock, R. N., * Compression of rocks
Rothwell, P. L., * Enhancement of trapped protons Rottman, G. J., * FUV dawn airglow	1 258	Scholer, M., ** Illumination models
Rottman, G. J., * FUV dawn airglow Rottman, G. J., * UV spectrum of Venus	34 8033	Scholl, D. W., ** Comments on paper by Holmes et al.
Koux, A., ** Pc I pulsations, 1 (L)	4 763	(L)
Roux, A., * Fine structure of Pc 1 pulsations, 2 (L)	16 3176	Schreiber, E., ** Wave velocities of oceanic rocks Schubert, G., * Magnetosphere of the moon, 1
Roux, A., ** Self-consistent theory of ELF hiss	34 8150	Schubert, G., * Lunar night side FM response
Rowe, J. F., Jr., Nighttime E region observations (L)	28 6811	Schubert, G., * Lunar night side EM response Schubert, G., ** Lunar magnetosphere, 2,
Rowe, J. F., Jr., * Nighttime E region conductivities Rowe, M. W., ** Cross sections	31 7461 28 6428	Experimental results
Ruderman, M. A., ** Stratospheric NO	21 4441	Schubert, G., ** Descending lithosphere
Rufenach, C. L., Scintillations from ionospheric		Schubert, G., ** Descending lithosphere Schubert, G., ** Lunar EM scattering
modification	25 5611	Schultz, P. H., " Martian lineaments
Rusch, D. W., Nitric oxide in the upper atmosphere	25 5676	Schulz, M., ** Drift shell splitting
Russell C T ** Polar cusp currents waves and	1 92	Schulz, M., ** Geomagnetic potential (B) Schulz, M., * CGL equations (B)
Russell, C. T., ** Polar cusp currents, waves, and resistivity	17 2177	Schulz, M., ** Inner zone alpha particles
Russell, C. T., ** High-latitude nightside plasma	13 2133	Schulz, M., ** Inner zone alpha particles Schulz, M., ** Correction (L)
instability	13 2150	Schuster, B. G., ** Stratospheric aerosols
Russell, C. T., ** Waves in the polar cusp	16 2917	Schutz, S., * Barium cloud electric fields
Russell, C. T., ** Substorm studies, 4	16 3068	Schwartz, D. A., ** Atmospheric gamma rays
Russell, C. T., ** Substorm studies, 9	16 3131	Schwartz, D. A., ** Atmospheric gamma rays Schwartz, K., ** Magnetosphere of the moon, 1 Schwartz, K., ** Lunar night side EM response
Russell, C. T., ** The polar cusp	19 3761	Schwartz, K., ** Limar magnetosphere 2 Every montal
Russell, C. T., * Comments on paper by J. P. Heppner (L)	10 400	Schwartz, K., ** Lunar magnetosphere, 2, Experimental results
Russell, C. T., Comments on paper by Schindler and	19 4001	Schwartz, K., * Lunar EM scattering
Ness (L)	31 7576	Schwartz, W. E., * EUV and incoherent scatter
Russell, C. T., ** Tail lobe magnetic variations	34 8087	measurements
Ryan, T. V., Deep water thermal structure	30 7129	Sclater, J. G., * Galapagos spreading center Scudder, J. D., * Solar wind electron
		Seidel, B. L., ** Mariner 9 mission
		Seidel, B. L., ** Mariner 9 mission
		Self, S., ** Terceira Island paleomagnetism
		Sen, A. K., * Radio absorption during a meteor
Sabu, D. D., Solar wind xenon	17 3245	shower (L)
Sackett, W. M., ** Hydrocarbons	24 5248	Shaffer, R. J., ** Comment by Hanson et al. (L) Shapiro, I. I., ** Mariner 9 mission
Sadeh, D. S., * Sidereal periodicity in earthquake occurrences	73 7700	Shapiro, J. H., ** D region scattering
Sagan, C., Mariner 9 mission	32 7709 20 4155	Sharma, J. P., Internal structure of Mars in
Sagan, C., * Mariner 9 mission	20 4155	general relativity
Sagan, C., Mariner 9 mission	20 4250	Sharma, R. P., * Lunar effect in conjugate echoes
Sagan, C., ** Mariner 9 mission	20 4313	Sharp, G. W., ** Proton scattering near bow shock
Saha, B., ** Radio absorption during a meteor shower (L)	10 7000	Sharp, R. P., Mariner 9 mission
	19 3998	Sharp, R. P., Mariner 9 mission
9004		

7. W. E., ** Twilight airglow	7 1153 35 8634	Somayajulu, B. L. K., * Ra, Th, and U in interstitial	21 4529
M. R., * Linear Island chains R. R., ** Trapped EM radiation	34 8136	water (B) Sonett, C. P., ** Magnetosphere of the moon, 1	13 2094
nwsky. J. P ** Tropospheric aerosol	27 6249	Sonett, C. P., ** Lunar night side EM response	19 3688
sley, D. C., ** Trace gas concentrations	30 7057	Sonett, C. P., ** Lunar magnetosphere, 2,	
novsky, J. P., ** Tropospheric aerosol sley, D. C., ** Trace gas concentrations 1, R. J., ** Wave spectra	15 2650	Experimental results	25 5437
masky, D. E., - Comment on paper by Cartright	17 0757	Sonu, C. J., * Beach profiles	9 1462 36 8887
ter al. (L) herd, G. G., * 6300-A emission near plasmapause	13 2357	Sonu, C. J., Comment on paper by Tam (L) Spencer N. W. ** Thermospheric composition	13 2265
(W)	22 4689	Spencer, N. W., ** Thermospheric composition Spengler, J. D., * Wake effect of waterdrops	3 497
man, R. H., ** Photoabsorption cross sections	10 1627	Spiger, R. J., ** Birkeland currents and particle	
asaki, K., ** Solar wind disturbances (L)	34 8364	fluxes	4 640
chara, K., ** Oxygen isotope composition	15 2625 27 6136	Srivastava, S. K., ** Vertical movement of sporadic	7 1232
abukuro, F. I., * Atmospheric ozone	24 5352	E (L) Stair, A. T., Jr., ** OH in auroral zone	30 7023
agu, M., Upper atmospheres of Mars and Venus (L)	28 6780	Stanley, G. M., ** NASA-MPE barium cloud	
ley, J. E., ** Comments on paper by Holmes et al.		experiment, 2	25 5732
(L) .	17 3515	Stauder, W., Chilean earthquakes	23 5033
P. N., ** Cation distribution	35 8474	Stechmann, T. D., ** Atmospheric electricity in	21 4508
Levich, S. A., ** Dielectric properties yer, V. S., ** Magnetotelluric research in the	29 2933	clouds (B) Steed, A. J., ** Ground observations of airglow (B)	36 8859
Arctic	8 1398	Steinbacher, R. H., Foreword	20 4007
M., ** Ocean surface temperature	12 1909	Stenbaek-Nielsen, H. C., * Conjugate auroral	
. B. S., * Diameter-rim width ratio of craters	26 5993	intensities	4 659 26 5922
A. J., * Properties of sediments	18 3597 17 3491	Stephens, D. R., ** Compression of rocks Sterling, D. L., ** Equatorial spread F (L)	13 2353
A. D., ** Tektite ablation	17 3491	Stern, D. P., Magnetic field line velocity (B)	10 1702
rberg, R. F., * Cosmic ray electrons above	31 7165	Stern, D. P., Electric field in open magnetospheric	
in. T., ** Caldera collapse	35 8591	model	31 7292
mons, G., ** Terrestrial heat flow	2 441	Stesky, R. M., * Conductivity of serpentinite	32 7614 8 1279
mons, G., ** Elasticity of some mantle crystal	0 1262	Steuber, A. M., ** Strontium isotopic ratios	20 4279
structure	8 1262	Stewart, A. I., ** Mariner 9 mission Stewart, A. I., ** Mariner 9 UV experiment	22 4547
ons, G., ** Electric dipole interference patterns	17 3287	Stewart, R. M., Composition and temperature of	
ons, G., ** Elasticity of water-saturated rocks	17 3310	outer core	14 2586
L. A., ** Keyes chondrite	8 1308	St. Lawrence, W. F., ** Sloping snow slab St. Lawrence, W. F., ** Snow failure criterion	2 339 23 4950
matt, G. M., Comments on paper by McKibben (L)	7 1235 5 798	Stocker, R. N., ** Nitric acid in stratosphere	30 7033
menko, T. N., ** Geomagnetic field (s, D. J., ** Electron precipitation at $L = 6$ (L)	31 7539	Stocker, R. N., ** Nitric acid in stratosphere Stoiber, R. E., ** Potassium content and depth to	
J. S., ** Carbon compounds in the stratosphere	24 5362	the seismic zone	29 6887
er. S. ** Plasma sheet variations	1 109	Stolarik, J. D., ** Winds above 200 km	28 6643
er, S., ** Magnetotail plasma flow	25 5463	Stolarski, R. S., ** Comparison of photoelectron calculations	28 6709
M, B., ** Vertical movement of sporadic E (L)	7 1232 11 1741	Stolov. H. L ** Stability of magnetopause	34 8078
ce, G. L., ** Water on the moon G. L., * Solar wind - mercury interaction (L)	19 3961	Stolov, H. L., ** Stability of magnetopause Stone, B. C., ** Solar flare propagation Stone, E. C., ** Solar flare cosmic rays (L) Storari, H. T., * Cyclones and anticyclones (B)	7 1007
	28 6443	Stone, E. C., ** Solar flare cosmic rays (L)	16 3150
coe, G. L., ** Solar wind structure coe, G. L., * Solar wind interaction with moon		Storari, H. T., * Cyclones and anticyclones (b)	15 2685 30 7163
(R)	28 6741	Storari, H. T., * Reply (L) Storzer, D., * Georgia tektites	23 4915
oe, G. L., ** Solar wind parameters at 20 solar	20 6777	Stover, C. W., Seismicity and tectonics	23 5209
radii (I)	28 6777 3 574	Strangway, D. W., * Paleomagnetism of Eocene	07 5077
onn, W. G. N., ** Trace gas concentrations (B)	•	Green River sediments	23 5237 16 2827
from Mars-2 and Mars-3 (L)	25 5808	Strickland, D. J., Venus O I emissions	22 4547
th, B. A., ** Mariner 9 mission	20 4252	Strickland, D. J., * Mariner 9 UV experiment Strickland, D. J., * Lyman alpha from Mars Strickland, D. J., * Lyman 21pha from Mars ** Apollo 16 rocks	28 6491
th, B. A., ** Mariner 9 mission th, B. F., ** Lunar night side EM response	20 4313 19 3688	Sturat-Alexander, D. E., ** Apollo 16 rocks	14 2379
th, B. F., ** Lunar night side EM response	19 3000	Sturms, F. M., Jr., ** Mariner 9 mission	20 4395 7 1100
.th, B. F., * Lunar magnetosphere, 2, Experimental	25 5437	Subbarao, S., * Drifting auroral ales	1 240
resultsh, D. F., Plasma radiation from shock waves (B)	13 2302	Sturms, F. M., Jr., ** Mariner 9 mission Subbarao, S., * Drifting auroral arcs Sudan, R. N., * Equatorial electrojet irregularities Suess, H. E., ** Natural radiocarbons Craim M. Magnetospheric field depression (L)	12 1897
m. E. J., ** Plasmaspheric hiss	10 1581	Sugiura, M., Magnetospheric field depression (L)	16 3182
.th, E. J., ** Plasmaspheric hiss	13 2054		1 292 15 2665
in, E. J., Observed properties of rotational	13 2088	Swanenburg, B. N., * Recent subsidence rates Swartz, W. E., ** Correlations of ionospheric and	10 2000
discontinuities ith, E. J., ** Comments on paper by N. F. Ness		Swartz, W. E., Collectations of The Swartz, W. E., Collectations o	1 281
et al. (L)	22 4803	Swartz, W. E., ** Comparison of photoelectron	20 4000
ith, L. H., ** Geomagnetic cutoffs and subcutoff	10 1515	calculations	28 6709 31 7306
fluxes	10 1654	a .c. p w * Flectric field and aurora	31 7300
ith, L. L., ** Night airglow ith, L. L., ** SAR arc observations (L)	31 7558	Swift, D. W., Generation of infrasonic waves by auroral electrojets	34 8205
ith, M. L., * Azimuthal dependence of wave		Swinnerton, J. W., ** Methane in the oceans	24 5317
	17 3321	auroral electrojets Swinnerton, J. W., ** Methane in the oceans Swinnerton, J. W., ** Ocean as CO source Swinnerton, J. W., ** Ocean as CO source (L)	24 5333
ish D H * (S3-A) initial results, 4	22 4731 20 4139	Swinson, D. B., August 1972 cosmic ray storm (L)	10 1707 13 2064
Heb D S II. ** Mariner 9 mission	17 3249	Svalgaard, L., Polar cap magnetic variations	14 2547
ith, S., * Eight recently fallen meteorites ith, S. D., ** Evaporation and heat flux over			20 4331
sea ice	18 3573		20 4352
ith. S. D., ** Wind stress on Arctic sea ice	33 7871	Symons, D. T. A., Paleomagnetism in original	23 5100
ith, W. D., ** Methane in the oceans	24 5317		23 3100
ith, S. D., ** Wind stress on Arctic sea ice ith, W. D., ** Methane in the oceans loot, G. F., ** Geomagnetic cutoffs and subcutoff	10 1515	Szuszczewicz, E. P., Electron temperature in the	31 7567
fluxes	23 4959	D region (L)	
vylie, D. E., ** Predictive filtering ider, R. H., * Waves in the North Atlantic	36 8793		
vder R. L., Surface gravity (B)	9 1475		
oderblom, L. A., * Mariner 9 mission derblom, L. A., * Mariner 9 mission	20 4117 20 4197		
derblom, L. A., * Mariner 9 mission	34 8150	Tajchman, S. J., Meteorological parameters	27 6381
olomon, J., ** Self-consistent theory of ELF hiss plomon, J., ** Self-consistent theory of ELF hiss plomon, S. C., S wave attenuation beneath a ridge	26 6044	above vegetation (B)	2, 0001
riomon, S. C., D wave accommended.			
			8005

		War W A * Floride lightning return strokes
Takahashi, H., ** Permitted oxygen line tropical	7 1174	Uman, M. A., * Florida lightning return strokes
nightglow	7 1174 27 6233	Uman, M. A., ** Production of CO Uman, M. A., ** Lightning return strokes (B)
Takahashi, T., Numerical simulation of clouds	15 2625	Unti, T., * Shock system of February 2, 1969
Takakuwa, T., ** Oxygen isotope composition Takeuchi, S., * Elasticity of water-saturated	20 2020	
rocks	17 3310	
Talwani, P., * Wave velocities in granular		
materials	29 6899	
Tam, C. K. W., Rip currents	12 1937 36 8891	Vacquier, V., * Fault displacement
Tam, C. K. W., Reply (L) Tamao, T., Oscillations of magnetospheric	50 0051	Vaidva. S. N. * Compressibility of minerals
tail (L)	19 3965	Vaišnys, J. R., ** Granular aggregates Vaišnys, J. R., ** Contact thermal conductivity in
Tanaka, Y., ** Trapped electrons below inner		
halt (I)	13 2341	lunar aggregates
Tanenbaum, B. S., ** D region scattering Tantry, B. A. P., ** Cerenkov radiation and VLF hiss	34 8266	Van Allen, J. A., ** Solar proton anisotropies Van der Voo, R., * Permian paleomagnetism
Tantry, B. A. P., ** Cerenkov radiation and VLF hiss Tantry, B. A. P., ** Vertical movement of sporadic	1 191	van Loon, H., * Reply (L)
E (L)	7 1232	van Loon, H., * Reply (L) van Loon, H., * Temperature in the stratosphere (B)
Taylor, B. G., ** Heas 2 magnetosheath observations		van Loon, H., * Zonal harmonic standing waves
(L)	10 1715	van Loon, H., * Correction (L)
Taylor, G. N., ** Multilateral temperature	1 107	Van Melle, M. J., * Microwave radiometry of the sea Van Zandt, T. E., * Reaction of O* with N ₂ (L)
comparisons Taylor H A Ir Thermospheric ion composition (I)	1 197 1 315	Venkatesan, D., ** Rise time of solar electron
Taylor, H. A., Jr., Thermospheric ion composition (L) Taylor, W. L., Radiation from storms	36 8761	events
Teixeira, N. R., ** Conjugate excitation of O I		Verma, S. K., Unique determination of various
airglow (B)	13 2315	parameters
Tempel, N. R., ** Atmospheric CO ₂ Terlecky, P. M., Jr., Soil cratering	6 932	Verniani, F., Physical parameters of faint meteors
Terlecky, P. M., Jr., Soil cratering	32 7671	Verschell, H. J., ** Atmospheric neutrons, 1 Verschell, H. J., ** Atmospheric neutrons, 2 Verschell, H. J., ** Atmospheric neutrons, 3
Thatcher, W., * Southern California earthquakes	35 8547	Verschell H. J., ** Atmospheric neutrons, 2
Theobald, J. K., ** Photoabsorption cross sections Thomas, R. J., ** Ogo 6 airglow observations	10 1627 28 6662	Verzariu, P., ** Trapped alpha particles-quiet time
Thomason O F Oscillations in atmosphere	27 6173	Verzariu, P., Protons, Z ≥ 3 nuclei in storm-time
Thompson, W. J., ** Reply (L)	33 7928	magnetosphere (L)
Thompson, W. J., ** Reply (L) Thorne, R. M., * Plasmaspheric hiss	10 1581	Veverka, J., ** Mariner 9 mission Veverka, J., ** Mariner 9 mission
inorne, R. M., "" Structure or electron belts	13 2142	
Thorpe, M. R., * Evaporation and heat flux over sea ice	18 3573	Vidal-Madjar, A., * Solar Lyman α and hydrogen exobase
Thurlow, C. I., ** Recent subsidence rates	15 2665	Viecelli, J. A., Spallation and surface wave
Thyssen-Bornemisza, S., Vibrating-string total-field		generation
accelerometer	11 1881	Viecelli, J. A., Buried explosive sources
Tilmann, S. E., * Ultrasonic shear wave birefringence	32 7623	Villante, U., ** Occurrence rate of discontinuities
Tilmann, S. E., * Sonic petrographic analysis Tinsley R A * Permitted cycles line transcel	35 8463	Villari, L., ** Tyrrhenian Sea volcanism
Tinsley, B. A., * Permitted oxygen line tropical nightglow	7 1174	Viskanta, R., * Energy scattering in water Völk, H. J., ** Solar wind instabilities (B)
Tisone, G. C., Measurements of NO densities	4 746	Volkov, G. I., ** Solar plasma observations from
Tite, M. S., ** Magnetite and maghemite	5 804	Mars-2 and Mars-3 (L)
Tobler, W. R., Equal area map projections	11 1753	Volland, H., Magnetospheric electric fields
Tomblin, J. F., ** Strontium isotopic ratios Tooma, S. G., Jr., ** Side-looking radar	8 1279	Volland, H., Comments on paper by Hines (L)
Tooma, S. G., Jr., ** Side-looking radar	3 520	Volland, H., ** Magnetic storm characteristics
Toon, O. B., * Stratospheric aerosols Toor, J. S., ** Energy scattering in water	30 7051 18 3538	Volland, H., * Thermospheric semiannual effect (L) Volland, H., ** Thermosphere phase anomaly
Towle, J. N., Magnetotelluric interpretation (L)	11 1887	VON Herzen, K. P., ** Heat flow and plate houndaries
Traimar S ** Renly (L)	13 2365	Von Herzen, R. P., ** Heat flow in the Pacific
Travic R ** Submarine langebore hare	21 4489	Vonnegut, B., * Vertical potential in lower
Trier, R. M., ** 228Ra in the world ocean	36 8827	atmosphere (B)
Trimpi, M. L., ** VLF propagation (B) Trinks, H., ** Esro 4 gas analyzer results, 1 (L)	22 4679	von Seggern, D., Seismic surface waves from Amchitka
Trivedi, B. M. P., * Nuclide production rates	31 7560 23 4885	Von Seggern, D., Correction (L)
Trofimov, I. L., * Magnetotelluric research in the	20 1003	von Zahn, U., * Esro 4 gas analyzer results, 1 (L)
Arctic (L)	8 1398	Vukovich, F. M., Ozone
Troitsky, V. S., * Dielectric properties	29 6933	
Trombka, J. I., ** γ ray emission spectra	26 5847	
Troy, B. E., Jr., ** Equatorial airglow Tryggvason, E., Surface deformation in Iceland	22 4630 14 2488	
Tsang, L., * Electric dipole interference patterns	17 3287	
Tsurutani, B., ** Cross correlation between AE		Wadhams, P., Sea ice
and IMF $B_{\mathbf{z}}$	4 617	Wagner, C. A., $\lambda_{2,2}$ variations
Tsurutani, B., ** Electric field and electrons	4 630	Wagner, C. A., Zonal gravity harmonics from
Tucker, R., ** Mariner 9 mission	20 4163	satellites Wagner, G. A., ** Georgia tektites
Tuohy, I. R., * Electrons during a magnetic storm (L)	34 8381	Wait, J. R., Comments on letter by Galejs (L)
Turco, R. P., ** Carbon compounds in the	34 8381	walker, J. C. G., ** Tropospheric ozone
stratosphere	24 5362	Walsh, J. B., Wave velocity and attenuation
Turcotte, D. L., * Descending lithosphere	26 5876	Walsh, J. B., Adiabatic compressibility
Turekian, K. K., Foreword	24 5247	Walsh, J. B., Theoretical bounds
Turkevich, A. L., ** Alpha particle experiment	5 781	Wang, ChY., * Propagation of sound waves Wang, D., * P-V-T properties of water
Turner, J. M., MHD discontinuities and behavior Tyler, G. L., * Radar investigation of the moon	1 59	Wang, H., * Elasticity of some mantle crystal
,, ce as, Madar investigation of the moon	23 4852	structures
		Wang, H. H., ** Microwave radiometry of the sea
		wang, H. I., Low-energy cosmic ray protons (R)
		Waldfluge, E., Lungr photoelectron lavor
		Wallis, M. K., Distant solar wind (L) Walton, J. R. ** Pitch and a distribution
Uhlmann, D. R., ** Viscosity of liquid anorthite	23 4920	Walton, J. R., ** Pitch angle distributions Walton, J. R., ** Substorm studies, 6
Ulifich, G. W., ** Xenoliths in maars and distremes	11 1833	Walton, J. R., * Cross sections
Ulrych, T. J., * Predictive filtering Ulwick, J. C., ** OH in auroral zone	23 4959	Warmbrod, J. D., ** Tektite ablation
Uman, M. A., * Lightning return stroke	30 7023	Warren, D. H., * Crustal structure under lace
Totali Sticks	18 3523	Warren, N., Compressibility of porous media

			05 5710
R., * Granular materials under compaction ler, R. A., ** Terminal velocity of raindrops	29 6911	Willis, J. W., * RF heating in E region (B) Wilshire, H. G., * Apollo 16 rocks	25 5710 14 2379
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	18 3619	Wilson, C. R., Comments on paper by Fedder and	
K. L., Sea-air interface	3 504	Banks (L)	4 778
rg, A. F., ** Trace gas concentrations	30 7057	Wilson, C. R., Auroral infrasonic waves (L)	22 4801 33 7834
oe, T., * Solar wind disturbances (L)	34 8364	Wilson, D. G., ** Swell near Aruba Wilson, W. J., ** Atmospheric ozone	27 6136
B., ** Trough ion temperatures and drift	10 1723	Wilson, W. S., * Swell near Aruba	33 7834
ed (L)	26 6060	Winckler, J. R., ** Electrojets and electron	
N. D., Reunion Island paleomagnetic secular	20 0000	dropouts (L)	34 8373
mation	32 7763	Winn, W. P., * Recordings of lightning flashes (B)	21 4515
N. D., ** Terceira Island paleomagnetism	35 8699	Winningham, J. D., * Auroras at South Pole and	20 (570
, K., Periodic heating of a layer	26 5904	from Isis 1	28 6579
J. P., * Fe ³⁺ /Fe ²⁺ ratios in titanomagnetites	17 3301	Winningham, J. D., ** Cleft motion observed by	31 7286
f. M., Incoherent scatter observations	16 2992	Isis 1 Witherspoon, P. A., ** Groundwater flow	27 6341
I. D., Electron content measurements (L)	7 1214	Wofsy, S. C., * Stratospheric mixing	15 2619
, W. R., * Cosmic ray electrons , W. R., * Cosmic ray electrons	10 1487	Woiceshyn, P. M., ** Mariner 9 mission	20 4331
W. R., * Cosmic ray gradients	13 1979	Woicecham D ** Mariner 9 mission	20 4352
R. A., Lunar plagioclases	14 2393	Wolff, R. A., ** Ion sheet motion Wolff, C. L., ** Comments on paper by Leer and	16 2852
I ** Fault creen events	32 7745	Wolff, C. L., ** Comments on paper by Leer and	16 7107
N., * Pc 1 pulsations, 1 (L)	4 763		16 3197 5 905
N., ** Fine structure of Pc 1		Won, I. J., * Oscillation of the inner core	3 903
lsations, 2 (L)	16 3176	Woodman, R. F., ** Multilateral temperature	1 197
r, D.J., * Mid-ocean ridge earthquakes	11 1818	comparisons Woodwell, G. M., * Atmospheric CO ₂	6 932
. T A ** Sfratoshheric aerosols	33 7789	Wright, C., P phases in the mantle	23 4965
ock, J., Equatorial electrojet currents (L)	4 772	Wright I W Kinesonde observations	25 5622
ock, J., ** Gradient drift instability in	28 6808	Wright, P. M., ** Heat flow in Utah	35 8687
uatorial electrojet (L)	20 4267	Wright, P. M., ** Heat flow in Utah Wright, R. J., * Keyes chondrite	8 1308
J., ** Mariner 9 mission	4 763		1 306
R., ** Pc l pulsations, 1 (L) R., ** Fine structure of Pc 1		Wu, C. S., ** Solar wind electrostatic instabilities	25 5802
ulsations, 2 (L)	16 3176	(L) Wu, CS., ** Shock system of February 2, 1969	31 7237
a Continu	9 1427	Wu, F. T., * Rat Island earthquake	26 6082
KP., ** Heos 2 magnetosheath observations	10 1715	Wu. J., Spray	3 511
	10 1715 4 659	Wu, S. S. C., * Mariner 9 mission Wyatt, C. L., ** Equatorial $O_2(^1\Delta g)$ emission	20 4405
tt, E. M., ** Conjugate auroral intensities	28 6643	Wyatt, C. L., ** Equatorial $O_2(^1\Delta g)$ emission	27 6140
t, E. M., ** Winds above 200 km M. L., * Atmospheric refractive index	27 6224	Wyss, M., ** Microearthquakes in Iceland	23 5084
owski, J. J., ** Chlorine loss from marine			
arosols	36 8778		
P I. * Seismicity preceding earthquakes	35 8527		
	7 1064		14 0007
	16 3093 16 3103	Yadlowsky, E. J., ** Ion temperature errors	16 2907 28 6428
A. I., Jr., ** Substorm studies, 7.	24 5345	Yaniv, A., ** Cross sections	16 3027
H. I., Jr., * Substorm Studies, 7 A. I., Jr., ** Substorm studies, 7 org, H. H., ** Hydrocarbons in air org, H. H., ** Hydrocarbons in air	10 1608	Yasuhara, F., ** Red auroras (B) Yasuhara, F., ** Auroras at South Pole and from	10 001.
the B. A., * Electron pitch angle diffusion ch. J. A., * FLIZ-red band-auroral oval	19 3848	Isis 1	28 6579
	31 7221	Yasuhara, F., * Cleft motion observed by Isis 1	31 7286
te, F. C., Alfven waves le, E. C., Jr., ** Ion temperature errors le, E. C., Jr., ** Comments on paper by Samir	16 2907	Vacubara E ** Auroral SubStorms (D)	31 7490
nle E. C. Jr. ** Comments on paper by Samir			22 4779
	28 6827	Yeroshenko, Ye. G., ** Magnetic rielu heal mais (2) York, J. E., * Low-velocity zone variations Yoshida, S., * Anisotropies during Forbush decreases Yoshid, T., * Structure of Southwest Japan margin Yoshid T. ** Fast Ching Sea-West Philippine Sea	11 1883 28 6409
* * Aqueous interfacé structures (L)	27 6406 14 2438	Yoshida, S., * Anisotropies during Forbush decreases	14 2517
a 7 W Failure for an isotropic medium	35 8623	Yoshii, T., * Structure of Southwest Japan Margin Yoshii, T., ** East China Sea-West Philippine Sea	21 2021
	22 4675	105811, 1., 2650 01111	14 2526
e, R. S., ** Inner belt protons (B)	5 858	margin Yoshii, T., ** Sulu and Celebes seas	17 3437
teman, R. E., ** Fault displacement teker, J. H., ** 6300-A emission near		Yoshii, T., ** Refraction measurements northeast	
	22 4689	of New Ireland	35 8653
ten, G., ** Bomb-produced stratospheric NO	07 (107	Young, T. S. T., * Magnetospheric HF waves	7 1082
	27 6107 24 5362		
	34 7986		
tten, R. C., * Carbon compounts in stratosphoto- berenz, G., ** Rise time of solar electron events kman, F. E., ** Diameter-rim width ratio of	54 7500		
kman, F. E., ** Diameter-rim width ratio of	26 5993		
craters	11 1870		
gins, R. A., * Upper mantle structure	18 3564	Zabusky, N. J., ** Plasma clouds in the ionosphere, 1	4 697
heit, T. T., ** Sea ice helms, D. E., Mariner 9 mission	20 4084		
Dille E M ** Thunderstorm Cells	6 913	Zabusky, N. J., * Talsas Cturrent (B) Zaneveld, J. R. V., * Cromwell current (B) Zaneveld, J. R. V., ** Suspended matter Zaneveld, J. R. V., ** Cromwell current Zaneveld, J. R. V., ** Mampatic field near Mars (L)	15 2708
	1 37 22 4719	Zaneveld, J. R. V., ** Suspended matter	30 7113
liams n J ** (So-A) initial results, 2	22 4719	Zaneveld, J. R. V., ** Cromwell current	33 7845 22 4779
	22 4751	Zaneveld, J. R. V., ** Cromwell current Zhuzgov, L. N., ** Magnetic field near Mars (L) Zimmerman, S. P., Meteor trails Zimmerman, S. P., Meteor trails	19 3927
liams, D. J., ** (S ³ -A) initial results, 7 liams, D. J., * (S ³ -A) initial results, 7 liams, D. J., ** Cold plasma and whistler	PE 4102	Zimmerman, S. P., Meteor trails	25 5429
liams, D. J., ** Cold plasma and whistler	31 7372		26 5867
		Zisk, S., ** Lunar black spots Zisk, S., ** Lunar black spots Zisk, S., ** Lunar black spots Zisk, S., ** Lunar black spots	25 5818
liams, R. T., * CO, CH4, and H2 in the	15 2691	Zisk, S., ** Lunar black spectrum during PCA events (L) Zmuda, A. J., ** HF absorption during PCA events (L) Zmuda, A. J., ** Field-aligned currents in the	
southern ocean (B)	13 2365		28 6802
liams, W., ** Reply (L)	24 5273	Zoller, W. H., ** Halogens in the Antarctic	33 7802
liams, W., ** Reply (L) liams, W. J., ** Vertical distribution of CO liams, W. J., ** Nitric acid in stratosphere	30 7033		
aximoy at vv)			

SOLAR PHYSICS AND ASTROPHYSICS

Interpretation of Ogo 5 Lyman alpha measurements in the upper geocorona Is there enough solar extreme ultraviolet radiation to maintain the global mean

CORONA

Hundhausen, A.J. Lanzerotti, L.J. Callahan, P.S. Nonlinear model of high-speed solar wind streams Coronal propagation of low-energy solar protons Plasma column changes at small solar elongations

thermospheric temperature?

ELECTROMAGNETIC RADIATION

Bertaux, J.L.+ Roble, R.G.+

Lincoln, J.V.	Geomagnetic and solar data
Lincoln, J.V.	Geomagnetic and solar data
Vidal-Madjar, A.+	Solar Lyman alpha changes and related hydrogen density distribution at the earth's exobase (1969-1970)
Allen, K.H.+	Broad band solar EUV absorption in the earth's upper atmosphere (L)
Lincoln, J.V.	Geomagnetic and solar data
Lincoln, J.V.	Geomagnetic and solar data
Lincoln, J.V.	Geomagnetic and solar data
Lincoln, J.V.	Geomagnetic and solar data
Heath, D.F.	Space observations of the variability of solar irradiance in the near and
Walbridge, E.	Lunar photoelectron layer
Lincoln, J.V.	Geomagnetic and solar data
Gulbrandsen, A.	Relation between coronal \(\lambda\) 5303 intensity, recurrent geomagnetic storms, and
	solar sector structure (L)
Rufenach, C.L.	Radio scintillation on stellar signals during artificial ionospheric modification
Swartz, W.E.+	Incompatibility of solar EUV fluxes and incoherent scatter measurements at Arecibo
Breig, E.L.	Aeronomic consequences of solar flux variations between 2000 and 1325 angstroms
Lin, R.P.	Interplanetary-particle associations with type III solar bursts (D)
Graedel, T.E.+	Interplanetary-particle associations with type III solar bursts (R)
Lincoln, J.V.	Geomagnetic and solar data
FLARES	
Pyle, K.R.	Propagation anisotropies of solar flare protons and electrons at low energies in interplanetary space
Maurer, R.H.+	Pitch angle distribution of solar flare particles in interplanetary space
Lupton, J.E.+	Solar flare particle propagation: Comparison of a new analytic solution with spacecraft measurements
Innanen, W.G.+	Anisotropies in the interplanetary intensity of solar protons $E_p > 0.3$ MeV
Simnett, G.M.	Azimuthal propagation of low-energy solar-flare protons (D)
McKibben, R.B.	Azimuthal propagation of low-energy solar-flare protons (R)
Sastry, T.S.G.	Daily variation of geomagnetic field at the Indian stations under the electroist
Gosling, J.T.+	during the period of the July 1966 proton flare

omalously low proton temperatures in the solar wind following interplanetary shock waves--Evidence for magnetic bottles? De Young, D.S.+ Simulation of driven flare-associated disturbances in the solar wind Abundance of solar cosmic ray alpha particles

Lanzerotti, L.J.+ Lanzerotti, L.J. Fleischer, R.L.+ Walton, J.R.+ Abundance of solar cosmic ray uspna particles Coronal propagation of low-energy solar protons Mechanical erasure of tracks: Tool for lunar microstratigraphic chronology He and Ne cross sections in natural Mg, Al, and Si targets and radionuclide cross sections in natural Si, Ca, Ti, and Fe targets bombarded with 14- to

45-Mev protons

Lin, R.P. Graedel, T.E.+ Interplanetary-particle associations with type III solar bursts (D)
Interplanetary-particle associations with type III solar bursts (R)
Azimuthal propagation of low-energy solar flare protons: Interpretation of McKibben, R.B. observations

Duggal, S.P.+ Anisotropies in relativistic cosmic rays from the invisible disk of the sun Mathews, T. Lanzerotti, L.J.+

Rise time to maximum flux of relativistic solar electron events and its relation to the high-frequency component of the interplanetary field power spectrum

Rao, U.R.+ Propagation anisotropies of solar flare protons and electrons at low energies in interplanetary space (D)

GAMMA RAY ASTRONOMY

Klumpar, D.M.+ Energy spectrum and flux of 3- to 20-Mev neutrons and 1- to 10-Mev gamma rays in the atmosphere

MAGNETIC FIELDS

Wallis, M.K. Single-fluid model of the distant solar wind (L)

See Section of the correlation of incoherent scatter and ionosomde measurements of temperature with calcium plage and 2800-megaherts intensities 1. 2.5. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2			
Soles, A.G. Soles repte control in the 17-day variation of geomagnetic activity (1) Lindminia propagation of low-energy soler flare protons: Interpretation of 13 7744 Soles repte description in relativistic cosmic rays from the invisible disk of the sum Cosmic ray durant amisotropy 1973-1972 IMMONSION 1 MODINION 1 MODINION 1 Modinion 1 Modinion 1 Modinion 2 Modinion 2 Modinion 3 Modinion 4 Modinion 5 Modinion 6 Modinion	E.C.+		25 5 375
Animatical propagation of low-energy solar flare protons: Interpretation of Solar Canada Solar Park Constitution of Solar Stars Propagation of Solar Stars Propagation of Solar Stars Propagation of Solar Stars Propagation of Solar Stars Protons (D. 1975) 5.8. Animatical propagation of Solar Stars particles in interplanetary space 5.8. Animatical propagation of Solar Canada Propagation (Solar Solar Park Park Park Solar Sola	cuier & T	plasma, and magnetic field observations over three solar rotations Solar evels control in the 27-day variation of geometric activity (L)	25 5825
T. DODATON Fisch angle distribution of solar flare particles in interplanetary space S.M. Azisumia propagation of low-energy solar-flare protons (D) S.B. Azisumia propagation of low-energy solar protons and of their protons (D) S.B. Azisumia propagation of low-energy solar protons and of their protons (D) S.B. Azisumia protons		Azimuthal propagation of low-energy solar flare protons: Interpretation of observations	
Pick mg8 distribution of color flare particles in interplacetary space 1 28			
### Ariametrial propagation of 10w-merry solar-flare protons (D) 7 1255 ### Ariametrial propagation of 10w-merry solar-flare protons (R) 10 10 107 1255 ### Ariametrial propagation of 10w-merry solar-flare protons (R) 10 10 107 1255 ### Ariametrial propagation of 10w-merry solar sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutrons and of their products, J, Sentrons from a sunsopheric neutron sent from the sunsopheric neutrons and sunsopheric neutrons and sentrons and sentro	LE RADIATION		
Administ propagation of low-mergy solar-flare protons (S) Discovering the property of the pumping solar-flare protons (S) Discovering of the August 1972 counter vary storn at high rigidities (1) 10.70 10.8. 10.8. The dependent worldwide distribution of stanopheric neutrons and of their products, S, Searons for solar protons 10.1. Administor of solar cosmic ray slips particles 10.2. 10.8. 10.8. 10.9.		Pitch angle distribution of solar flare particles in interplanetary space	
### Public State Propagation of the Juguet 1972 costs: ray storm at high righties (L) 10 2703 ### Public State Products P		Azimuthal propagation of low-energy solar-flare protons (D)	7 1239
F.B. Time dependent worldwide distribution of atmospheric neutrons and of their products, b, keutrone from solar protucals Administry, b, keutrone from solar protucals Administry, b, keutrone from solar protucals Administry and propagation of low-mergy solar protons 19 3035 Administry and synthesis of coronal and interplanetary energetic particle, plasma, and magnetic field observations over three solar rotations 5 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	nem, h.b.	Observations of the August 1972 cosmic ray storm at high rigidities (1)	10 1707
Abundance of solar cosmic ray alpha particles 11	., 2.B	Time dependent worldwide distribution of atmospheric neutrons and of their	
E.C. Dangeric and solar data S.J. Geommartic and solar data	.tti, 1.J.+	Abundance of solar cosmic ray alpha particles	
plasma, and magnetic field observations over three solid rotations 25 581 **Literylanetary-particle graph of the polar cap edge during PCA reveals bursts (B) 26 6822 **Literylanetary-particle associations with type III solar bursts (B) 26 6822 **Literylanetary space associations with type III solar bursts (B) 37 700 **Ji.** Direct accretion of "he and "lifted cosmic rays from the invisible disk of the sun 38 700 **Ji.** Direct accretion of the and "lifted cosmic rays" and electrons at low energies in interplanetary space **Literylanetary space** **Comparison of the correlation of incoherent scatter and ionosonde measurements of temperature with calcium plage and 2800-megaherts intensities **Comparison of the correlation of incoherent scatter and ionosonde measurements of temperature with calcium plage and 2800-megaherts intensities **Literylanetary space** **Comparison of the correlation of incoherent scatter and ionosonde measurements of temperature with calcium plage and 2800-megaherts intensities **Literylanetary space** **Lite	etti, 1.J.	analysis and synthesis of coronal and interplanetary energetic particle,	25 5375
J. Loterplanetary-particle associations with type III solar pursue (0) S.F.* Amisotropies is relativistic consist synt type III solar pursue (1) J.E. Programment of the control program of the synthesis of the synthesis in relativistic consist rays L.* Direct control program and solar consist rays In interplanetary space Comparison of the correlation of incoherent scatter and ionosonds measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and ionosonds measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and ionosonds measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of acts and the synthesis of temperature with calcium plage and 2800-megahertz intensities Comparison of temperature and 2800-megahertz intensities Comparison of temperature and 2800-megahertz intensities Comparison of the correlation of acts and 2800-megahertz intensities 1 28 S.J.W. Geomagnetic and solar data 7124 S.J.W. Geo		nlasma, and magnetic field observations over three solar rotations	25 5818
S.F. Amisotropies in relativistic costs rays from the invisible disk of the sum J.E. Direct accretion of the and "if from costic rays from the invisible disk of the sum J.E. Direct accretion of the sum if from costic rays In interplanetary space Comparison of the correlation of incoherent scatter and immosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and immosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and immosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and immosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and immosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and immosonde measurements of temperature with calcium plage and 2800-megahertz intensities 1 28 2. 3. 3. 4. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.		Total transfers marriels associations with type III Solar Dursts (D)	28 6821
J.E. Pirect accreases a Plantage of 20 from cosmic rays L. Propagation of the correlation of incoherent scatter and iomosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and iomosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and iomosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of incoherent scatter and iomosonde measurements of temperature with calcium plage and 2800-megahertz intensities Comparison of the correlation of accompanies and solar data and the companies of the companies and solar data and the companies and t	T.E.+	Total American marticle associations with TVDE III 5012F DUISTS (N)	
Propagation amisotropies of solar flare protons and electrons at low emerges in interplanetary space 1 28. 1 28. 2 3. J.V. Geomagnetic and solar data Geomagnetic and solar data Geomagnetic and solar data 7 124. 2 3. J.V. Geomagnetic and solar data 7 124. 3 3. J.V. Geomagnetic and solar data 7 124. 3 3. J.V. Geomagnetic and solar data 7 124. 3 3. J.V. Geomagnetic and solar data 7 124. 3 3. J.V. Geomagnetic and solar data 7 124. 3 3. J.V. Geomagnetic and solar data 19 323. 3 3. J.V. Geomagnetic and solar data 19 32	. 5.2.4	and the second of the second o	34 8330
in interplanetary space Of temperature with calcium plage and 2800-megahertz intensities 1 28 Of temperature with calcium plage and 2800-megahertz intensities 1 35 3.3.W. Geomagnetic and solar data 4 73 3.3.W. Geomagnetic and solar data 5 1017 3.3.W. Geomagnetic and solar data 6 3.3.W. Geomagnetic and solar data 7 124 3.3.W. Geomagnetic and solar data 7 124 3.3.W. Geomagnetic and solar data 8 1017 3.3.W. Geomagnetic and solar data 9 3.4.W. Geomagnetic density (1) 9 3.4.W. Geomagnetic density (2) 9 3 4.5.W. Geomagnetic density (2) 9 3 4.5.W. Geomagnetic density (2) 9 3 4.5.W. Geomagnetic de	R	Propagation anisotropies of solar flare protons and electrons at low energies	34 8409
Comparison of the correlation of incoherent scatter and indosons of temperature with calcium plage and 2800-megaherts intensities of temperature with calcium plage and 2800-megaherts intensities		in interplanetary space	
of temperature with calcium plage and 2000-megameric intensives 5, J.V. Geomagnetic and solar data 4, 78, J.V. Geomagnetic and solar data 5, J.V. Geomagnetic and solar data 7, 124 5, J.V. Geomagnetic and solar data 7, 124 5, J.V. Geomagnetic and solar data 7, J.V. J.V. Flore defended and solar data 8, J.V. Geomagnetic data 8, J.V. Geomagnetic and solar data 8, J.V. Geomagnetic data 8, J.V. Ge		Comparison of the correlation of incoherent scatter and ionosonde measurements	1 281
s, J.W. Geomagnetic and solar data A. J.W. J.W. Geomagnetic and solar data A. J. J.W. Geomagnetic and solar data A. J. J.W. J.W. J.W. J.W. J.W. J.W. J.W.	ingh, J.L.+	of temperature with calcium plage and 2800-megahertz intensities	
S. J.W. Geomagnetic and solar data 3. J.W. Geomagnetic and solar data 4. J.W. Geomagnetic and solar data 5. J.W. Geomagnetic and solar data 6. J.W. Geomagnetic and solar data 7. J.W. J.W. Geomagnetic and solar data 7. J.W. J.W. Geomagnetic and J.W. J.W. J.W. J.W. J.W. J.W. J.W. J.W	TS		7 227
S. J.W. Geomagnetic and solar data N. J.W. J.W. Geomagnetic and solar data N. J.W. J.W. J.W. J.W. J.W. J.W. J.W. J.	v. J.V.	Geomagnetic and solar data	4 780
a, J.W. Geomagnetic and solar data J.W. J.W. Geomagnetic and solar flare protons from unclear interactions and of their products, J. Fast neutron observations B.T. Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium J.W. Geomagnetic and solar data J. Geomagnetic and solar data J.W. J.W. J.W. J.W. J.W. J.W. J.W. J.W	n, J.V.	Geomagnetic and solar data	7 1243
SENTS AND TECHNIQUES L.R. Observation of electrons at mid-latitude during a magnetic storm (L) SENTS AND TECHNIQUES L.R. Propagation amisotropies of solar flare protons and electrons at low energies in interplanetary space UL OR MISCELLANEOUS Solar eclipse effect on sporadic F ionization, 2 (L) J.F.N. Solar eclipse effect on sporadic F ionization, 2 (L) J.F.N. Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations Products, 1, Fast neutron observations B.T. Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity Solar cycle control in the 27-day variation of geomagnetic activity Solar cycle control in the earth's upper atmosphere (L) PLANETOLOGY SOPHERES OF PLANETS CMERN, M.E. Possible sources of water on the moon Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detect	n, J.V.	Geomagnetic and solar data	10 1739
28 68. 2 J.W. Geomagnetic and solar data 28 68. 2 J.W. Geomagnetic and solar data 3 J.W. Geomagnetic and solar data 4 J. S.E. Cosmic-ray diurnal anisotropy 1937-1972 ASTRONOMY J.R.+ Observation of electrons at mid-latitude during a magnetic storm (L) SENTS AND TECHNIQUES E.R. Propagation amisotropies of solar flare protons and electrons at low energies 1 in interplanetary space UL OR MISCELLANEOUS Solar eclipse effect on sporadic F ionization, 2 (L) 1 J.K. Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations products, 1, Fast neutron observations 1 J.W. Coemergy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity SOFMERES OF PLANETS COMMIN. H.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Some aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and Some aspects of possible sources of water on the moon Engles of pressure transients in the detection and identification of lunar Engles Sources of water on the moon Engles of pressure transients in the detection and identification of lunar Engles Sources of water on the moon Protocomical Copy (2 Lag. * + 2 Zug.) 2890-A band (L) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	£, J.V.	Geomagnetic and solar data	13 2375
A. S.E. Cosmic-ray diurnal anisotropy 1937-1972 A. S.E. Cosmic-ray diurnal anisotropy	.n, J.V.	Geomagnetic and solar data Geomagnetic and solar data	28 6832
ASTRONOMY , J.R.+ Observation of electrons at mid-latitude during a magnetic storm (L) SENTS AND TECHNIQUES E.R. Propagation amisotropies of solar flare protons and electrons at low energies in interplanetary space IL OR MISCELLANEOUS 1. E.N. Solar eclipse effect on sporadic F ionization, 2 (L) 1. E.N. Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations 1. E.V. How-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity 25 58: PLANETOLOGY SOMERES OF PLANETS CMERT, W.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and atmosphere atmosphere m, K.H.+ Production of the solar system and surface and atmosphere of venus of water on the moon passed of the solar system and state of the solar system and interesting to the solar system and state of the solar system and interesting to the solar system and state of the solar	in, J.V.	Commenter and solar data	34 7933
DENTS AND TECHNIQUES L.R. Propagation amisotropies of solar flare protons and electrons at low energies in interplanetary space N. OR MISCELLANEOUS R.N. Solar eclipse effect on sporadic E ionization, 2 (L) Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity PLANETOLOGY STHERES OF PLANETS CVETN, M.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of plametary evolution Alpha particle experiment for chemical analysis of the Martian surface and atmosphere en, K.H.* Perojee, N.R.+ Proad band solar EUV absorption in the earth's upper atmosphere (L) Profile, N.R.+ Possible sources of water on the moon land to the surface of th		Cosmic-ray diurnal anisotropy 1557-1572	
Propagation amisotropies of solar flare protons and electrons at low energies in interplanetary space ULL OR WISCELLANEOUS F.N. Solar eclipse effect on sporadic E ionization, 2 (L) Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations Low-energy cosmic ray protons from nuclear interactions of cosmic rays with Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity ESPHERES OF PLANETS CVETN, W.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of plametary evolution Alpha particle experiment for chemical analysis of the Martian surface and atmosphere en, K.H.+ Porsible sources of water on the moon Possible sources of water on the moon For J.J.+ Potential atmospheric composition of smaller bodies in the solar system and some aspects of plametary evolution Alpha particle experiment for chemical analysis of the Martian surface and atmosphere en, K.H Porsible sources of water on the moon Possible sources of water on the moon Bole of pressure translents in the detection and identification of lunar Bole of pressure translents in the detection and identification of lunar Bole of pressure translents in the detection and identification of lunar On the extent of the Martian inonsphere of Venus On the extent of the Martian inonsphere of Venus On the extent of the Martian inonsphere of Venus On the extent of the Martian inonsphere of CO ₂ induced by vacuum Fluorescence excitation and photoelectron spectra of CO ₂ induced by vacuum Fluorescence excitation and photoelectron spectra of CO ₂ induced by vacuum atmospheric density (L) Lunar photoelectron in Determination of the planet's Solar wind-secreury atmosphere interaction: Determination of the planet's Solar wind-secreury atmosphere interaction: Determination of the planet's Solar wind-secreury atmosphere interaction: Determination of the planet's Solar	ASTRONOMY	a constant during a magnetic storm (L)	34 8381
ILR. Propagation amisotropies of solar flare protons and electrons at low energies in interplanetary space 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, I.R.+	Observation of electrons at min-latitude data.	
in interplanetary space I. E.N. Solar eclipse effect om sporadic E ionization, 2 (L) I. E.N. Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations I.T. Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity PLANETOLOGY SPHERES OF PLANETS OPEN, W.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and atmosphere end band solar EUV absorption in the earth's upper atmosphere (L) F.G. R.H.+ Possible sources of water on the moon Role of pressure transients in the detection and identification of lunar gas sources Photoelectron excitation of the Jupiter dayglow Photoelectron excitation of the Jupiter dayglow On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere of Venus On the extent of the Martian ionosphere Solar wind-mercury atmosphere interaction: Determination of the planet's Solar vind-mercury atmosphere interaction: Determination of the planet's Solar vind-mercury atmosphere interaction: Determination of the planet's Detail A to the planet's Solar vind-mercury atmosphere interaction: Determination of the planet's Detail A to the product of the planet of the planet's Solar vind-mercury atmosphere interaction: Determination of the planet's Detail A to the product of the planet of the planet's Detail A to the product of the planet of the planet's Detail A to the product of the planet of the planet's Detail A to the product of the planet of the planet's Detail	MENTS AND TECHNI	QUES	1 12
FIRE Solar eclipse effect om sporadic E ionization, 2 (L) Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity PLANETOLOGY SPHERES OF PLANETS Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and atmosphere En, K.H.* Periode, N.R.* Nerjee, N.R.* Nerjee, N.R.* Nero, J.J.* Possible sources of water on the moon sphere of venus OI 1304-and 1356-A emissions from the atmosphere of Venus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Martian ionosphere of Nerus On the extent of the Org* (\$^{2}Z_{L}^{*} + \$^{2}Z_{R}^{*}) 2890-A band (L) Photoionization excitation of the COg* (\$^{2}Z_{L}^{*} + \$^{2}Z_{R}^{*}) 2890-A band (L) Photoionization excitation of the COg* (\$^{2}Z_{L}^{*} + \$^{2}Z_{R}^{*}) 2890-A band (L) Photoionization excitation of the COg* (\$^{2}Z_{L}^{*} + \$^{2}Z_{R}^{*}) 2	K.R.	Propagation anisotropies of solar flare plotons and occupant in interplanetary space	
Solar eclipse effect on sporadic E ionization, 2 (L) Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity PLANETOLOGY SPHERES OF PLANETS One aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Possible sources of water on the moon Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the atmosphere of Venus On the extent of the Martian ionosphere On the extent of the Martian ionosphere Photoinization excitation of the CO2* On the extent of the Martian ionosphere Solar wind-mercury atmosphere interaction: Determination of the planet's	IAL OR MISCELLANEC		1 320
Time dependent worldwine distributions products, 1, Fast neutron observations Low-energy cosmic ray protons from nuclear interactions of cosmic rays with the interstellar medium Solar cycle control in the 27-day variation of geomagnetic activity PLANETOLOGY SPHERES OF PLANETS PLANETOLOGY PLANETOLOGY PLANETOLOGY SPHERES OF PLANETS Overn, W.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients	PN	Solar eclipse effect on sporadic E ionization, 2 (L)	16 2727
the interstellar medium FLANETOLOGY SPHERES OF PLANETS PLANETOLOGY SPHERES OF PLANETS Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and atmosphere em, K.H.* Perjee, N.R.* Possible sources of water on the moon Role of pressure transients in the detection and identification of lunar Nero, J.J.* Possible sources of water on the atmosphere of Venus OI 1304-and 1356-A emissions from the atmosphere of Venus		Time dependent worldwide distribution of data pro-	25 5693
PLANETOLOGY SPHERES OF PLANETS Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution atmosphere en, K.H.+ Possible sources of water on the moon possible sources of water on the moon Role of pressure transients in the detection and identification of lunar gas sources Proposible sources of water on the supper atmosphere (L) Possible sources of water on the supper atmosphere (L) Possible sources of water on the supper atmosphere (L) Possible sources of water on the supper atmosphere (L) Photological pressure transients in the detection and identification of lunar (L) Photological pressure transients in the detection and identification of lunar (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients from the atmosphere of Venus (L) Photological pressure transients in the detection and identification of lunar (L) Photological pressure transients in the death's upper atmosphere (L) Photological pressure transients in the earth's upper atmosphere (L) Photological pressure transients in the earth's upper atmosphere (L) Photological pressure transients in the earth's upper atmosphere (L) Photological pressure transients in the earth's upper atmosphere (L) Photological pressure transients in the earth's upper atmosphere (L) Photological press	. н.т.	Low-energy cosmic ray protons from hacter	25 5825
Form, W.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution some aspects of planetary evolution atmosphere em, K.H.* Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian in the earth's upper atmosphere (L) 7 12 11 12 12 12 13 12 14 12 15 13 14 15 15 15 16 16 20 17 15 16 20 18 16 20 18 16 20 18 16 20 18 16 20 18 20 18 20 18 20 18 20 18 20 18 20 28 20	er-Smith, A.C.	Solar cycle control in the 27-day variation of geomagnetic activity	
Form, W.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution some aspects of planetary evolution atmosphere em, K.H.* Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian surface and Alpha particle experiment for chemical amalysis of the Martian in the earth's upper atmosphere (L) 7 12 11 12 12 12 13 12 14 12 15 13 14 15 15 15 16 16 20 17 15 16 20 18 16 20 18 16 20 18 16 20 18 16 20 18 20 18 20 18 20 18 20 18 20 18 20 28 20		DI ANDROLL OCY	
CMETH, W.E. Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution Alpha particle experiment for chemical analysis of the Martian surface and Alpha particle experiment for chemical analysis of the Martian surface and atmosphere em, K.H.* Perjee, N.R.* Proad band solar EJV absorption in the earth's upper atmosphere (L) Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Nero, J.J.* Photoelectron excitation of the Jupiter dayglow Photoelectron excitation of the Jupiter dayglow 16 2 Photoelectron excitation of the Martian ionosphere On the extent of the Martian ionosphere On the extent of the Martian ionosphere On the extent of the Martian ionosphere Thomas, R.W.* Photoinization excitation of the CO2* Photoinization excitation of the CO2* Photoinization excitation and photoelectron spectra of CO2 induced by vacuum Intraviolet radiation between 185 and 716 angstroms Photoelectron layer Solar wind-mercury atmosphere interaction: Determination of the planet's Solar wind-mercury atmosphere interaction: Determination of the planet's EDIA days Possible sources Alpha particle experiment for chemical analysis of the Martian surface and Solar wind-mercury atmosphere Lunar photoelectron layer Solar wind-mercury atmosphere interaction: Determination of the planet's 20 4 21 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	OSPHERES OF PLANET	rs.	
some aspects of planeters, and solar EUV absorption in the earth's upper atmosphere (L) The planeters of water on the moon and identification of lunar possible sources of water on the moon gas sources Vero, J.J.+ **Coland, D.J.* **On the extent of the Martian innosphere of Venus of the extent of the Martian innosphere of Venus on the extent of the Martian innosphere of Venus on the extent of the Martian innosphere of Venus on the extent of the Martian innosphere of Venus on the extent of the Martian innosphere of Venus on the extent of the Martian innosphere of Venus on the extent of the Martian innosphere of Venus on the extent of the CO2* (B^2 \sum_u + \frac{1}{2} \sum_q \) 2890-A band (L) in the extent of the CO2* (B^2 \sum_u + \frac{1}{2} \sum_q \) 2890-A band (L) in the extent of the CO2* (B^2 \sum_u + \frac{1}{2} \sum_q \) 2890-A band (L) in the control of the CO3* (B^2 \sum_u + \frac{1}{2} \sum_q \) 2890-A band (L) in the control of the CO3* (B^2 \sum_u + \frac{1}{2} \sum_q \sum_q \) 2890-A band (L) in the control of the CO3* (B^2 \sum_u + \frac{1}{2} \sum_q \		Patential atmospheric composition of smaller bodies in the solar system and	1 274
atmosphere m, K.H.+ broad band solar EUV absorption in the earth's upper atmosphere (L) lil 11 briges, N.R.+ possible sources of water on the moon Role of pressure transients in the detection and identification of lunar gas sources verd, J.J.+ photoelectron excitation of the Jupiter dayglow local solution of the Jupiter dayglow local solution of the Jupiter dayglow local solution of Jup		Alpha particle experiment for chemical analysis of the Martian surface and	5 781
Possible sources of sater in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and identification of lunar Role of pressure transients in the detection and place of Venus 16.2 gas sources 16.2 metal at atmosphere of Venus 16.3 metal Role of Linar Indicate of Linar Indicate of Venus 16.3 metal Role of Linar Indicate On the extent of the Martian ionosphere on the extent of the Martian ionosphere (B ² E _L * + ½ ² E _{Lg}) 2890-A band (L) 16.3 metal Role of		atmosphere (L)	7 1219 11 1741
gas sources Photoelectron excitation of the Jupiter dayglow 16 22 Photoelectron excitation of the Jupiter dayglow 16 23 17 1304-and 1356-A emissions from the atmosphere of Venus 18 25 13.4 18 1304-and 1356-A emissions from the atmosphere of Venus 19 3 19	.herjee, N.R.+	Possible sources of water on the moon Possible sources of water on the detection and identification of lumar	13 2111
Vero, J.J.+ Photoelectron excitation of the Suphere of Venus O I 1304-and 1356-A emissions from the atmosphere of Venus On the extent of the Martian ionosphere On the extent of the Martian ionosphere Soon, R.W.+ Fluorescence excitation of the CO ₂ * (B ² E _L * + A ² E _{LQ}) 2890-A band (L) Photoionization excitation of the CO ₂ * (B ² E _L * + A ² E _{LQ}) 2890-A band (L) Photoionization excitation of the CO ₂ * (B ² E _L * + A ² E _{LQ}) 2890-A band (L) Photoionization excitation of the CO ₂ * (B ² E _L * + A ² E _{LQ}) 2890-A band (L) Photoionization excitation of the CO ₂ * (B ² E _L * + A ² E _{LQ}) 2890-A band (L) Photoionization excitation of the CO ₂ * (B ² E _L * + A ² E _{LQ}) 2890-A band (L) Photoionization excitation of the CO ₂ * (B ² E _L * + A ² E _{LQ}) 2890-A band (L) Photoionization excitation and photoelectron spectra of CO ₂ induced by vacuum ultraviolet radiation between 185 and 716 angstroms 19 3 Dividge, E. Solar wind-mercury atmosphere interaction: Determination of the planet's Solar wind-mercury atmosphere interaction: Determination of the planet's 20 4 21 4 Elli A	, F.G.	gas sources	16 2812
or, S.J.* On the extent of the Saltation of the CO_2^+ $(B^2\Gamma_{kl}^- + R^2\Gamma_{ll}^-)$ 2890-A band (L) 1son, R.W.+ 1son, J.A.R.* Photoionization excitation of the CO_2^+ $(B^2\Gamma_{kl}^- + R^2\Gamma_{ll}^-)$ 2890-A band (L) 19 3 19		Photoelectron excitation of the superior superior of Venus	16 2827 16 3169
Photoionization excitation of the spectra of CO ₂ induced by vacuum Fluorescence excitation and photoelectron spectra of CO ₂ induced by vacuum Fluorescence excitation and photoelectron spectra of CO ₂ induced by vacuum It is so, J.A.R.+ Photoionization excitation of the planet's It is so, J.A.R.+ Limar photoelectron layer Solar wind-mercury atmosphere interaction: Determination of the planet's Solar wind-mercury atmosphere interaction: Determination of the planet's 20 4 21 4 5 5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		On the extent OI LEC Mai Land 1 1 20 4 1 1 2000 A hand (1.)	16 3194
Ultraviolet lauter ultraviolet ultrav	"Ison, R.W.+	Photoionization excitation of the spectra of CO ₂ induced by vacuum	19 3663
Dridge, E. Lunar photoelectron layou across per interaction: Determination of the planet's solar wind-mercury atmosphere interaction wind-mercury atmo	ason, J.A.R.+		19 3668 19 3961
atmospheric density on Mars 20 4 Eolian deposits and dunes on Mars		Lunar photoelectron layer Salar wind-marcury atmosphere interaction: Determination of the planet's	
te I A + Eolian deposits and dumes on Mars			20 4139
Sandstorms and College of the Tracket	tts, J.A.+	Eolian deposits and dimes on Mars	20 4155 20 4163
	gan, C.		20 4211
çun, C.+ Variable features on Mars, polar regions tts, J.A. Wind erosion in the Martian polar regions		Wind erosion in the Martian polar regions	

Liquid carbon dioxide and the Martian polar laminas
Mars atmosphere during the Mariner 9 extended mission: Television results
Atmospheric and surface properties of Mars obtained by infrared spectroscopy Leovy, C.B.+ Conrath, B.+ on Mariner 9 Mariner 9 ultraviolet spectrometer experiment: Afternoon terminator Ajello, J.M.+ observations of Mars Preliminary report on infrared radiometric measurements from the Mariner 9 Kieffer, H.H.+ spacecraft S band radio occultation measurements of the atmosphere and topography of Mars with Mariner 9: Extended mission coverage of polar and intermediate latitudes Approximations to the mean surface of Mars and Mars atmosphere using Mariner 9 Kliore, A.J.+ Cain. D.L.+ occultations Mariner 9 ultraviolet spectrometer experiment: Mars atomic oxygen 1304-A Strickland, D.J.+ Helium in the topside Venus ionosphere Herman, J.R. Beasley, W.H.+ Gutcheck, R.A.+ Wave-induced eddy diffusion coefficients in the upper atmosphere Excitation of the CO fourth positive system by the dissociative recombination of CO2+ ions Theoretical emergent Lyman alpha intensities from Mars Strickland, D.J.+ Atmospheric mixing in the upper atmospheres of Mars and Venus (L)
Differential equation of exospheric lateral transport and its application Shimizu, M. Hodges, R.R., Jr. to terrestrial hydrogen Globally stored organic carbon and radiocarbon dates
Ultraviolet (1200-1900 angstrom) spectrum of Venus
Escape of "He and fast O atoms from Mars and inferences on the "He mixing Libby, L.M. Rottman, G.J.+ Knudsen, W.C. ratio Helium and hydrogen in the lunar atmosphere Hodges, R.R., Jr. COMETS Askouri, N.A.+ Spatial distribution of elements in tektites and comparable materials by charged particle activation analysis An analysis of the physical parameters of 5759 faint radio meteors Verniani, F. GROSS PROPERTIES OF THE MOON (SIZE, SHAPE, GRAVITY, AND MAGNETIC FIELDS) Induced magnetosphere of the moon, 1, Theory Mariner 9 television observations of Phobos and Deimos, 2 Schubert, G.+ Pollack, J.B.+ Pieters, C.+ Lunar black spots and nature of the Apollo 17 landing area GROSS PROPERTIES OF PLANETS McGovern, W.E. Potential atmospheric composition of smaller bodies in the solar system and

McGovern, W.E.

Potential atmospheric composition of smaller bodies in the solar system and some aspects of planetary evolution

Mead, G.D.+

Sagan, C.

Liquid carbon dioxide and the Martian polar laminas

Lorell, J.+

Mariner 9 celestial mechanics experiment: Status report

Martian surface coordinates

de Vaucouleurs, G.+

Dolginov, Sh. Sh.+

Magnetic field in the very close neighborhood of Mars according to data from the Mars 2 and Mars 3 spacecraft (L)

Phillips, R.J.+

Mars: Crustal structure inferred from Bouguer gravity anomalies

INTERIOR OF MOON (TECTONICS, FORCE FIELDS, COMPOSITION, ETC.)

Cassen, P.+

Anderson, D.L.

Schubert, G.+

Smith, B.F.+

Induced magnetosphere of the moon, 2, Experimental results from Apollo 12 and Explorer 35

Possible sources of water on the moon

INTERIORS OF PLANETS

Mukherjee, N.R.+

Phillips, R.J.+
Sharma, J.P.
Klosterman, M.J.+
Structure of Mars in general relativity
Structural analysis of olivine in pallasitic meteorites: Deformation in planetary interiors

INTERPLANETARY DUST

Knott, K.

Harvey, G.A.

Clifton, K.S.

Farlow, N.H.+

Bigg, E.K.+

Electrostatic charging of the lunar surface and possible consequences (L)

Elemental abundance determinations for meteors by spectroscopy

Television studies of faint meteors

A Ray analysis of balloon-collected particles erroneously considered as an October influx into the lower stratosphere (D)

X ray analysis of balloon-collected particles erroneously considered as an October influx into the lower stratosphere (R)

METEORITICS

Blau, P.J.+

Investigation of the Canyon Diablo metallic spheroids and their relationship
to the breakup of the Canyon Diablo meteorite
Depth variation of cosmogenic noble gases in the ~120-kg Keyes chondrite
207pb_205pb isochron and age of chondrites
Sabu, D.D.
Solar wind xenon in some carbonaceous chondrites
Smith, S.+
Harvey, G.A.
Zimmerman, S.P.

Hental abundance determinations for meteors by spectroscopy
Meteor trails and atmospheric turbulence

nn, W.K. ,â, B.M.P.+	Martian cratering, 4, Mariner 9 initial analysis of cratering chronology Nuclide production rates in stone meteorites and lunar samples by galactic cosmic radiation	20 4096 23 4885
m, K.S.	Television studies of faint meteors Structural analysis of olivine in pallasitic meteorites: Deformation in	28 6511 32 7581
bcharya, S.K.+	planetary interiors Semiempirical rates of formation of cosmic ray tracks in spherical objects	34 8356
m, T.V.+	exposed in space: Pre- and post-atmospheric depth profiles (L) Optical properties of carbonaceous chondrites and their relationship to asteroids	35 8507
E (FIRST KILOMET	ER) OF MOON (MECHANICAL PROPERTIES, TOPOGRAPHY, ALBEDO, ETC.)	
(у в.+	Optical properties of Apollo 12 moon samples Acoustic velocities and energy losses in granular aggregates	5 7 92 5 810
em, C.L.+ chin, T.R.+	veneliths in mages and distremes with inferences for the moon, Mars, and venus	11 1833 14 2379
re, H.G.+	Apollo 16 rocks: Petrology and classification Paramagnetic resonance spectra of Ti ³⁺ , Fe ³⁺ , and Mn ²⁺ in lunar plagioclases Paramagnetic resonance spectra of Ti ³⁺ , Fe ³⁺ , and Mn ²⁺ in lunar plagioclases	14 2393 16 3172
K. G.H.	Electrostatic charging of the lumar surface and possible consequences (L) Spatial distribution of *\(^{40}\text{Ar}\)/39Ar ages in lunar breccia 14301 Experimental results on combined ultraviolet-proton excitation of moon rock	17 3216 17 3512
r D.B.	Experimental results on compiled diffationed process statements of luminescence (L) Comparison of Martian and lumar multiringed circular basins	20 4084
ms, D.E.	Floatric notential of the moon in the Solar Wind	22 4560 23 4827
B.W. her, R.L.+	Seismic properties of fine rock powders in lunar conditions Mechanical erasure of tracks: Tool for lunar microstratigraphic chronology Mechanical erasure of tracks: Tool for lunar microstratigraphic chronology	23 4841 23 4852
G.L.+ , G.H.	Dual-frequency bistatic-radar investigations of the moon with Apollo 15 samples: Implications for the	23 4875
adi, B.M.P.+	Distribution of gases within solid bodies of the solar system incorporation of gases within solid bodies of the solar system Nuclide production rates in stone meteorites and lunar samples by galactic	23 4885
R.C.+	cosmic radiation Expected γ ray emission spectra from the lunar surface as a function of	26 5847
	chemical composition	26 5867 26 5904
rs, C.+	Periodic heating of a layer over a semi-infinite sortal	26 5993
I I, B.S.+	diameter for lunar and terrestrial craters Commonwiscon of the Minneart reflectance law and the reflectance from a	27 6370 27 6370
e trom, B.R.	nonconservative isotropic scattering attmosphere	28 6428
on, J.R.+	45-Mev protons	28 6741
e, G.L.+ wez, R.	Solar wind interaction with interaction with land and a solution of the lan	29 6833
CES OF PLANET	and a service of the Martian surface and	5 781
omou, T.E.+	Alpha particle experiment for chemical analysis of the Martian surface and atmosphere Xenoliths in maars and diatremes with inferences for the moon, Mars, and Venus	11 1833
tchin, T.R.+ ridge, E.		19 3668 20 4009
rsky, H.	Overview of geological results from Marinet	20 4031 20 4037
on, D.J.	Generalized geologic map or Mais Water and processes of degradation in the Martian landscape Volcanism on Mars	20 4049 20 4063
, M.H. p, R.P.	Mars: Troughed terrain	20 4084 20 4096
telms, D.E.	Martian cratering, 4, Married January Martian surface	20 4117 20 4123
arblom, L.A.+	Mariner 9 evidence for white ordered	20 4139
ts, J.A.+	regions of Mars Eolian deposits and dunes on Mars Sandstorms and eolian erosion on Mars Sandstorms and eolian erosion of Mariner 9 global results	20 4155 20 4163
an, C.	Sandstorms and colian crosson on Mars 9 global results Variable features on Mars, 2, Mariner 9 global results Mariner 9 observations of the surface of Mars in the north polar region Mariner 9 observation polar regions	20 4197 20 4211
erblom, L.A.+	Mariner 9 observations of the Martian polar regions	20 4222 20 4231
irp, R.P.	Mars: South polar pits and etches of the Martian polar regions	20 4250 20 4267
gan, C.	Liquid caroon district the second surface properties of Mars obtained by infrared spectroscopy	20 4291
arath, B.+	Preliminary report on infrared radiometric measurements from the Mariner	20 4291
lace, J.B.+	spacecraft Spacecraft Mariner 9 television observations of Phobos and Deimos, 2 Mariner 9 television observations of Mars and Mars atmosphere using Mariner Approximations to the mean surface of Mars and Mars atmosphere	20 4313
nn, D.L.+	Approximations to the mean surface	20 4355 20 4395
vies, M.+	Martian surface coordinates	20 4405 20 4411
Vaucouleurs, G.+	Photogrammetric evaluation by analytic photogrammetry	20 4424
asius, K.R.	Cartographic products from the south polar region	20 4436 22 4669
· Vaucouleurs, G	Unlim in the topside volume and arrayity anomalies	23 4815 23 4827
erman, J.R. illips, R.J.+	Mars: Crustal Structure interactions of fine rock powders in lumar conditions Seismic properties of fine rock powders in lumar conditions	27 6370
ones, B.W. arkstrom, B.R.	Comparison of the state of scattering atmosphere	35 8415
chultz, P.H.+	nonconservative isotropic states and 7 images Martian lineaments from Mariner 6 and 7 images	

Huguenin, R.L.	Photostimulated oxidation of magnetite, 1, Kinetics and alteration phase identification
Huguenin, R.L. Johnson, T.V.+	Photostimulated oxidation of magnetite, 2, Mechanism Optical properties of carbonaceous chondrites and their relationship to asteroids
TEKTITES	
Askouri, N.A.+	Spatial distribution of elements in tektites and comparable materials by charged particle activation analysis
O'Keefe, J.A., III+ Storzer, D.+	charged particle activation analysis Tektite ablation: Some confirming calculations Fission track ages and stratigraphic occurrence of Georgia tektites
INSTRUMENTS AND TECHNIC	QUES
Economou, T.E.+	Alpha particle experiment for chemical analysis of the Martian surface and atmosphere
Knudsen, W.C.+	Ion-impact-produced secondary electron emission and its effect on space instrumentation
Askouri, N.A.+	Spatial distribution of elements in tektites and comparable materials by charged particle activation analysis
Hall, F.G.	Role of pressure transients in the detection and identification of lunar surface gas sources
Grard, R.J.L.	Properties of the satellite photoelectron sheath derived from photoemission laboratory measurements
Tsang, L.+	Interference patterns of a horizontal electric dipole over layered dielectric media
Tyler, G.L.+	Dual-frequency bistatic-radar investigations of the moon with Apollos 14 and 15
Clifton, K.S.	Television studies of faint meteors
GENERAL OR MISCELLANEOU	S
Merker, M.+	Time dependent worldwide distribution of atmospheric neutrons and of their products, 1, Fast neutron observations
Batson, R.M.	Cartographic products from the Mariner 9 mission
Pilbeam, C.C.+ Reedy, R.C.+	Contact thermal conductivity in lunar aggregates Expected γ ray emission spectra from the lunar surface as a function of
Siegal, B.S.+	chemical composition Geometric interpretation of the ratio of overall diameter to rim crest diameter
Dahms, R.G.+	for lunar and terrestrial craters Emittance measurement of Surveyor 3 material
Huguenin, R.L.	Photostimulated oxidation of magnetite, 1, Kinetics and alteration phase identification
Huguenin, R.L.	Photostimulated oxidation of magnetite, 2, Mechanism
COSMIC RAYS	PARTICLES AND FIELDS IN INTERPLANETARY SPACE
Webber, W.R.+ Pyle, K.R.	Cosmic ray electrons of $E>1$ GevSome new measurements and interpretations Propagation anisotropies of solar flare protons and electrons at low energies
Maurer, R.H.+ Ahluwalia, H.S.	in interplanetary space Pitch angle distribution of solar flare particles in interplanetary space Coupling function for the vertical muon telescope at 60-meters-water-equivalent
Burger, J.J.+	depth (L) Energy dependent time lag in the long-term modulation of cosmic rays (L)
Gold, R.E.+ Fisk, L.A.+	Forbush predecrease Solar modulation of galactic cosmic rays, 3, Implications of the Compton-Getting
Lupton, J.E.+	Solar flare particle propagation: Comparison of a new analytic solution with
Innanen, W.G.+	spacecraft measurements Anisotropies in the interplanetary intensity of solar protons $E_p > 0.3$ Mev
Fennell, J.F. Webber, W.R.+	Access of solar protons to the earth's polar caps Cosmic ray electrons from 0.2 to 8 Mev: Pioneer 8 and 9 measurements of their
Luhmann, J.G.+	spectrum, time variations, and interplanetary radial gradient
Webber, W.R.+	Solar and geomagnetic modulation of low-energy secondary cosmic ray electrons Interplanetary radial gradients of galactic cosmic ray protons and helium
O'Brien, K.+	Calculated cosmic ray neutron monitor response to solar modulation of galactic
Jokipii, J.R.+	cosmic rays Solar flare cosmic rays at and beyond the modulation boundary (L)
Lanzerotti, L.J.+	Abundance of solar cosmic ray alpha particles
Lanzerotti, L.J. Yoshida, S.+	Coronal propagation of low-energy solar protons Variations of three-dimensional anisotropy of cosmic rays during Forbush
Walton, J.R.+	decreases
	He and Ne cross sections in natural Mg, Al, and Si targets and radionuclide cross sections in natural Si, Ca, Ti, and Fe targets bombarded with 14- to 45-Mey protons
Fisk, L.A.+	Correlation length for interplanetary magnetic field fluctuations
Lin, R.P. Graedel, T.E.+	Interplanetary-particle associations with type III color hymeta (D)
Silverberg, R.F.+	Interplanetary-particle associations with type III solar bursts (R) Primary cosmic ray electrons above 10 Gev: Measurements using a thick
Antonucci, E.+	detector

Diurnal anisotropies of the cosmic ray intensity underground during maximum solar activity

Anisotropies in relativistic cosmic rays from the invisible disk of the sun

Azimuthal propagation of low-energy solar flare protons: Interpretation of observations

8912

Antonucci, E.+

McKibben, R.B.

Duggal, S.P.+

,, S.E.	Cosmic ray diurnal anisotropy 1937-1972 Energy spectrum and flux of 3- to 20-Mev neutrons and 1- to 10- Mev gamma	34 7933
r, D.M.+ mtti, L.J.+	rays in the atmosphere Pise time to maximum flux of relativistic solar electron events and its	34 7959
	relation to the high-frequency component of the interplanetary field	34 7986 34 8330
, J.E. .R.÷	Direct accretion of ³ He and ³ H from cosmic rays Propagation anisotropies of solar flare protons and electrons at low energies in interplanetary space (D)	34 8409
RAY EFFECTS IN M	METEORITES AND TERRESTRIAL MATTER	
, W.R.+ mans, J.C.+	Cosmic ray electrons of $E>1$ GevSome new measurements and interpretations Reservoir models and production rate variations of natural radiocarbon	1 1 12 1879 17 3249
S.+ her, R.L.+ ii, B.M.P.+	Ages of eight recently fallen meteorites Mechanical erasure of tracks: A tool for lunar microstratigraphic chronology Nuclide production rates in stone meteorites and lunar samples by galactic	23 4841 23 4885
mcharya, S.K.+	cosmic radiation Semiempirical rates of formation of cosmic ray tracks in spherical objects exposed in space: Pre- and post-atmospheric depth profiles (L)	34 8356
∞OMAGNETIC RADIAT		
, D.F.	Plasma radiation from collisionless MHD shock waves and the high-frequency waves in the upstream solar wind	13 2302
WAVES		
-, J.M.	On the relation between solar wind structure and solar wind rotational and tangential discontinuities	1 59 7 1198
sano, V. ausen, A.J.	On the March 7-8, 1970, event (L) Nonlinear model of high-speed solar wind streams Nonlinear model of high-speed solar wind solar wind following inter-	10 1528
ng, J.T.+	Anomalously low proton temperatures in the solal wind research waves-Ryidence for magnetic bottles?	13 2001 13 2035
ausen, A.J.	Evolution of large-scale solar wind structures beyond 1 10	16 3155 16 3159
, T.A. ung, D.S.+	Single-fluid model of the distant solar whin Traveling regions of high solar wind density observed in early August 1972 (L) Simulation of driven flare-associated disturbances in the solar wind Observation and analysis of abrupt changes in the interplanetary plasma	19 3633
n, R.N.+	Observation and analysis of antipe changes in the last provided in the last provided in velocity and magnetic field Pioneer 8 observations and interpretations of sixteen interplanetary	19 3653
sano, B.+	Pioneer 8 observations and interpretations of discount and property of shock waves observed in 1968 Steepening of nonlinear waves in the solar wind	22 4535 25 5411 31 7237
., J.K. T.+	Shock system of February 2, 1969	34 7996
ausen, A.J.	Variations of the occurrence rate of discontinuates and analysis	34 8011
mabe, T.+	planetary magnetic rield Solar wind disturbances detected by the interplanetary scintillation of radio sources in early August 1972 (L)	34 8364
LR WIND ELECTRIC F	FIELDS	
, CI.+	Cross-correlation analysis of the AE index and the interplanetary magnetic	4 617 13 2094
mbert, G.+	field B _g component Induced magnetosphere of the moon, 1, Theory Nightside electromagnetic response of the moon	19 3688
	ONS WITH MOON AND PLANETS	
	2 the continuum fluid approach to the solar wind-moon interaction problem (E)	10 1711 13 2094
bert, G.+	Induced magnetosphere of the moon, in	16 2793 16 3169
d, G.D.+ er, S.J.+	On the extent of the Martian Tonograms, and the	17 3245
u, D.D. h, D.B.	Experimental results on combined distributions from the luminescence (L)	17 3512 19 3688
ubert, G.+ coe, G.L.+	Nightside electromagnetic response or the moon Solar wind-Mercury atmosphere interaction: Determination of the planet's	19 3961 22 4560
eman, J.W.+ ginov, Sh.Sh.+	Electric potential of the moon in the Solar Magnetic field in the very close neighborhood of Mars according to data from	22 4779
grue, G.H.	Distribution of gases within Apollo 15 samples: Implications for the	23 4875
ith, B.F.+	Induced magnetosphere of the moon, -,	25 5437
rtle, R.E.+	Effects of electrostatic instabilities on plants	25 5802 25 5808
ringauz, K.I.+	in the solar wind (L) Results of solar plasma electron observations on Mars 2 and Mars 3 spacecraft (L) Spacecraft (L)	25 5808 25 5813
eenstadt, E.W.	Oblique structure of Jupiter's bow show the lower troposphere after	27 6167
hwartz, K.+	Lunar electromagnetic scattering, 1, Propagation parallel to the	28 6496 28 6741
scoe, G.L.+	Solar wind interaction with Third Board and inferences on the The mixing Escape of He and fast 0 atoms from Mars and inferences on the The mixing	34 8049 34 8055
odges, R.R., Jr.	ratio Helium and hydrogen in the lumar atmosphere	8913

Plasma sheet at lunar distance: Characteristics and interactions with the Rich. F.J.+ lunar surface SOLAR WIND MAGNETIC FIELDS Propagation anisotropies of solar flare protons and electrons at low energies Pyle, K.R. in interplanetary space Pitch angle distribution of solar flare particles in interplanetary space Further study of the 0 component of the interplanetary magnetic field On the relation between solar wind structure and solar wind rotational and Maurer, R.H.+ Rosenberg, R.L.+ Turner, J.M. tangential discontinuities Semiannual variation of geomagnetic activity Cross-correlation analysis of the $A\!E$ index and the interplanetary magnetic field Russell, C.T.+ Meng, C.-I.+ $\ensuremath{\textit{Bg}}\xspace$ component Effects of interplanetary magnetic sector structure on auroral zone and Burch, J.L. polar cap magnetic activity
Note on signal enhancement for dual magnetometer systems (L) Ness, N.F. Adition wave refraction by interplanetary inhomogeneities Identification of interplanetary tangential and rotational discontinuities Polar cap magnetic variations and their relationship with the interplanetary Daily, W.D. Smith, E.J. Svalgaard, L. magnetic sector structure Correspondence of solar field sector direction and polar cap geomagnetic field Campbell, W.H.+ changes for 1965 Observed properties of interplanetary rotational discontinuities
Induced magnetosphere of the moon, 1, Theory
Solar flare cosmic rays at and beyond the modulation boundary (L)
On the role of fluctuations in the interplanetary magnetic field on heat Smith, E.J. Schubert, G.+ Jokipii, J.R.+ Cuperman, S.+ conduction in the solar wind (L)
Alfvén waves in the solar wind: Wave pressure, Poynting flux and angular Hollweg, J.V. momentum Martin, R.N.+ Observation and analysis of abrupt changes in the interplanetary plasma velocity and magnetic field Nightside electromagnetic response of the moon Schubert, G.+ Feldman, W.C.+ Solar wind heat transport in the vicinity of the earth's bow shock Kivelson, M.G.+ Dependence of the polar cusp on the north-south component of the interplanetary magnetic field Hirshberg, J.+ Russell, C.T.+ Geomagnetic activity at sector boundaries Polar cap electric field distributions related to interplanetary magnetic field direction (D) Polar cap electric field distributions related to interplanetary magnetic field direction (R) Heppner, J.P. Gulbrandsen, A. Relation between coronal λ 5303 intensity, recurrent geomagnetic storms, and Relation between coronal A 5503 intensity, recurrent geomagnetic storms, and solar sector structure (L)

Use of two magnetometers for magnetic field measurements on a spacecraft (R)

Use of two magnetometers for magnetic field measurements on a spacecraft (R)

Analysis and synthesis of coronal and interplanetary energetic particle, plasma, and magnetic field observations over three solar rotations

Variations of three-dimensional anisotropy of cosmic rays during Forbush decreases

Variation of the Davis-Smith method for in-flight determination of spacecraft Davis, L., Jr.+ Ness, N.F.+ Roelof, E.C.+ Yoshida, S.+ Belcher, J.W. magnetic fields Correlation length for interplanetary magnetic field fluctuations
Azimuthal propagation of low-energy solar flare protons: Interpretation of observations Fisk, L.A.+ McKibben, R.B. Alfvén waves in spiral interplanetary field Auroral substorms and the interplanetary magnetic field Whang, Y.C. Akasofu, S.-I.+ Raise time to maximum flux of relativistic solar electron events and its relation to the high-frequency component of the interplanetary field power spectrum Variations of the occurrence rate of discontinuities in the interplanetary Lanzerotti, L.J.+ Mariani, F.+ magnetic field SOLAR WIND PLASMA Rosenberg, R.L.+ Turner, J.M. Further study of the θ component of the interplanetary magnetic field On the relation between solar wind structure and solar wind rotational and tangential discontinuities Observations of the He II 304-A radiation in the night sky Paresce, F.+ Wu, C.S.+ Interaction of singly charged interstellar helium ions with the solar wind (L) DeForest, S.E. Detection of solar wind at synchronous orbit (L) On the March 7-8, 1970, event (L) Formisano, V. Hundhausen, A.J. Nonlinear model of high-speed solar wind streams Rickett, B.J. Gosling, J.T.+ Power spectrum of density irregularities in the solar wind plasma Anomalously low proton temperatures in the solar wind following inter-planetary shock waves--Evidence for magnetic bottles? Feldman, W.C.+ Double ion streams in the solar wind Burlaga, L.F.+ Solar wind temperature and speed Hundhausen, A.J. Evolution of large-scale solar wind structures beyond 1 AU Alfven wave refraction by interplanetary inhomogeneities
Identification of interplanetary tangential and rotational discontinuities
Observed properties of interplanetary rotational discontinuities
Plasma radiation from collisionless MHD shock waves and the high-frequency Daily, W.D. Smith, E.J. Smith, E.J. Smith, D.F. waves in the upstream solar wind Jokipii, J.R.+ Solar flare cosmic rays at and beyond the modulation boundary (L) Wallis, M.K. Croft, T.A. Single-fluid model of the distant solar wind (L)
Traveling regions of high solar wind density observed in early August 1972 (L)

On the role of fluctuations in the interplanetary magnetic field on heat conduction in the solar wind (L)

descriptions (D)

Collisionless solar wind protons: A comparison of kinetic and hydrodynamic

Cuperman, S.+

Brandt, J.C.+

, T.E.+	Collisionless solar wind protons: A comparison of kinetic and hydrodynamic descriptions (R)	16 3199
mg, D.S.+ g, J.V.	Simulation of driven flare-associated disturbances in the solar wind Alfvén waves in the solar wind: Wave pressure, Poynting flux, and	19 3633
., R.N.+	angular momentum Observation and analysis of abrupt changes in the interplanetary plasma	19 3643
.n, W.C.+	velocity and magnetic field Solar wind heat transport in the vicinity of the earth's bow shock	19 3653 19 3697
., M.+	Validity of CGL equations in solar wind problems Geomagnetic activity at sector boundaries	19 3948 19 3952
erg, J.+	Plasma column changes at small solar elongations	20 4330 22 4560
an, J.W.+ ∴, E.C.+	Electric potential of the moon in the solar wind Analysis and synthesis of coronal and interplanetary energetic particle, plasma, and magnetic field observations over three solar rotations	25 5375
J.K.	Character of nonlinear waves in the solar WING	25 5411
., R.E.+	Effects of electrostatic instabilities on planetary and interstellar ions in the solar wind (L)	25 5802 25 5808
R.R.+	In the solar wind (L) Results of solar plasma electron observations on Mars 2 and Mars 3 spacecraft (L) Solar wind structure between 20 solar radii and the orbit of Mars	28 6443 28 6451
⊱n, W.C.+ V.+	On the origin of solar wind proton thermal anisotropy	28 6469 28 6535
Fr. J.D.+	Electron observations in the solar wind and magnetosheath Heat current and anisotropy-driven instabilities in connection with the solar wind	28 6737
R.R.+	Power spectra of solar wind parameters at 20 solar radii derived from	28 6777
Y.C.	Mariner 5 data (L) Alfvén waves in spiral interplanetary field	31 7221
₩ B.R.	Solar wind properties at the earth as predicted by the one-fluid model with helioclassical thermal electron conductivity	31 7229 31 7237
\$.+ 1	Shock system of February 2, 1969	34 7996
eusen, A.J.	Variations of the occurrence rate or discontinuities in the interpretary	34 8011
₿.	Effects of solar wind composition, anisotropy, and streaming on ordinary	34 8023
mabe, T.+	mode electromagnetic instability Solar wind disturbances detected by the interplanetary scintillation of radio sources in early August 1972 (L)	34 8364
MENTS AND TECHN	C. H. A. Cow. Some new measurements and interpretations	1 1
berg, R.L.+		1 51
alia, H.S.	Coupling function for the Vertical much terescope as a second sec	1 288 7 1019
maen, W.G.+	Anisotropies in the interplanetary intensity of solar proteins ap	10 1709 13 2017
. N.F.	Double ion streams in the solar wind Properties of the satellite photoelectron sheath derived from photoemission	16 2885
1, R.J.L.	laboratory measurements	22 4560 22 4803
man, J.W.+ s, L., Jr.+	Use of two magnetometers for magnetic first measurements on a spacecraft (R)	22 4809
., N.F.+ d, R.J.L.+	Evaluation of experimental elicis in state and	25 5507
cher, J.W.	satellites Variation of the Davis-Smith method for in-flight determination of spacecraft	28 6480
	magnetic fields	
ERAL OR MISCELLAN	EOUS of an unstable plasma (L)	13 2337
11, N.A.+	Adiabatic gamma for two-dimensional compression of an unstable plasma (L) Plasma column changes at small solar elongations Plasma column changes at small solar elongations	20 4330
lahan, P.S. omberg, H.W.+	Particle acceleration by an electrostatic way	31 7531
mar, S.+	phase velocity Polarization of the 584- and 304-angstrom emissions of helium in the geocorona and interplanetary medium geocorona and interplanetary flame protons and electrons at low	34 8065
, U.R.+	geocorona and interplanetary more protons and electrons at low	34 8409
	energies in interplanetary space (D)	
	PARTICLES AND FIELDS IN EARTH'S MAGNETOSPHERE	
M SHOCK WAVES	the parion near the earth's bow shock	4 607
sakow, S.L.+	Proton scattering in the region near the earth's bow shock Plasma radiation from collisionless MHD shock waves and the high-frequency waves	13 2302 13 2308
oth, D.F.	in the upstream solar winds criterion	13 2331 19 3697
tthrop, T.G.+ teenstadt, E.W.	Statistics of bow shock homelity of the earth's bow shock	19 3714
idman, W.C.+ rmisano, V.+	Solar wind interaction with the earth's magnetic field, 2, Magneton, drop, and solar wind interaction with the earth's magnetic field, 2,	19 3731
ormisano, V.+	bow shock Solar wind interaction with the earth's magnetic field, 3, On the earth's bow	19 3745
ormisano, V.+	shock structure	25 5813 28 6522
rcenstadt, E.W.	On the structure of the tall the solar wind and magnetosheath	28 6535 28 6787
cudder, J.D.+ ormisano, V.	Electron observations in the State Fluid dynamics and bow shock motion (L)	89
T. A.Salio, . 1 1		

```
ELECTRIC FIELDS
                                 Observed relationships between electric fields and auroral particle precipitation 
Semiempirical model of large-scale magnetospheric electric fields 
Recent studies of magnetospheric electric field emissions above the electron
Gurnett, D.A.+
Volland, H.
Fredricks, R.W.+
                                    gyrofrequency (L)
                                  Whistler observations of the depletion of the plasmasphere during a magnetospheric
Park, C.G.
                                    substorm
                                 Field-aligned currents, plasma waves, and anomalous resistivity in the disturbed
Fredricks, R.W.+
                                    polar cusp
                                 Self-consistent calculation of the motion of a sheet of ions in the magnetosphere
Jaggi, R.K.+
Park, C.G.+
Russell, C.T.+
                                 Distortions of the nightside ionosphere during magnetospheric substorms
Polar cap electric field distributions related to interplanetary magnetic field
                                    directions (D)
                                 Polar cap electric field distributions related to interplanetary magnetic field
Heppner, J.P.
                                    direction (R)
                                 Double floating probe measurements on S3-A
Maynard, N.C.+
                                 Plasma wave observations near the plasmapause with the {\rm S^{3}}{\text{-}}{\rm A} satellite Balloon and VLF whistler measurements of electric fields, equatorial electron
Anderson, R.R.+
Mozer, F.S.+
                                    density, and precipitating particles during a barium cloud release in the
                                    magnetosphere
                                 Preliminary analysis of NASA optical data obtained in barium ion cloud experiment
Adamson, D.+
                                    of September 21, 1971
                                 Penetration of thundercloud electric fields into the ionosphere and
Park, C.G.+
                                    magnetosphere, 1, Middle and subauroral latitudes
Mozer, F.S.+
Stern, D.P.
Swift, D.W.+
                                 Response of polar cap convection to the interplanetary magnetic field (L) Study of the electric field in an open magnetospheric model
                                 Direct comparison between satellite electric field measurements and the
                                    visual aurora
Atkinson, G.
                                 Proposed experiment to determine if field-aligned currents close by
                                    polarization currents (L)
Rassbach, M.E.
                                 Upward birkeland currents (L)
Bogott, F.H.+
                                 Nightside energetic particle decreases at the synchronous orbit
INTERACTIONS BETWEEN SOLAR WIND AND MAGNETOSPHERE
                                 Semiannual variation of geomagnetic activity
Russell, C.T.+
Ossakow, S.L.+
Meng, C.-I.+
                                 Proton scattering in the region near the earth's bow shock
Cross-correlation analysis of the AE index and the interplanetary magnetic
                                 field B_B component Effects of interplanetary magnetic sector structure on auroral zone and polar cap magnetic activity Magnetosheath observations at high northern latitudes by Heos 2 (L) Polar cap magnetic variations and their relationship with the interplanetary
Burch, J.L.
Hedgecock, P.C.+
Svalgaard, L.
                                    magnetic sector structure
                                 Correspondence of solar field sector direction and polar cap geomagnetic field changes for 1965
Campbell, W.H.+
                                 Statistics of bow shock nonuniformity (L)
Greenstadt, E.W.
                                 Electron precipitation patterns and substorm morphology
Observations of the auroral oval and a westward traveling surge from the
Isis 2 satellite and the Alaskan meridian all-sky cameras
Hoffman, R.A.+
Anger, C.D.+
                                 Satellite studies of magnetospheric substorms on August 15, 1968, 2, Solar
McPherron, R.L.+
                                    wind and outer magnetosphere
McPherron, R.L.+
                                 Satellite studies of magnetospheric substorms on August 15, 1968, 9,
                                    Phenomenological model for substorms
                                 Solar wind heat transport in the vicinity of the earth's bow shock Solar wind interaction with the earth's magnetic field, 1, Magnetosheath Solar wind interaction with the earth's magnetic field, 2, Magnetohydrodynamic
Feldman, W.C.+
Formisano, V.+
Formisano, V.+
                                    bow shock
Formisano, V.+
                                 Solar wind interaction with the earth's magnetic field, 3, On the earth's bow
                                    shock structure
Kivelson, M.G.+
                                 Dependence of the polar cusp on the north-south component of the interplanetary
                                    magnetic field
Hirshberg, J.+
                                 Geomagnetic activity at sector boundaries
                                 Polar cap electric field distributions related to interplanetary magnetic field direction (D)
Russell, C.T.+
Heppner, J.P.
                                 Polar cap electric field distributions related to interplanetary magnetic field direction (R)
Burke, W.J.+
                                 Effects on the geomagnetic tail at 60 \rm R_{E} of the geomagnetic storm of April 9, 1971
                                 Solar cycle control in the 27-day variation of geomagnetic activity (L) On the structure of the turbulent bow shock
Fraser-Smith, A.C.
Formisano, V.+
Mozer, F.S.+
                                 Response of polar cap convection to the interplanetary magnetic field (L) Fluid dynamics and bow shock motion (L) \,
Formisano, V.
Yasuhara, F.+
                                 Equatorward shift of the cleft during magnetospheric substorms as
                                    observed by Isis 1
                                 Study of the electric field in an open magnetospheric model
Internal structure of the geomagnetic neutral sheet (D)
Torque applied by the solar wind on the tilted magnetosphere
Stern, D.P.
Russell, C.T.
Papagiannis, M.D.
Boller, B.R.+
                                 Explorer 18 study of the stability of the magnetopause using a Kelvin-Helmholtz
                                 instability criterion
Solar wind substorm-related changes in the lobes of the geomagnetic tail
Caan, M.N.+
Bogott, F.H.+
```

INTERACTIONS BETWEEN MAGNETOSPHERE AND COSMIC RAYS

Williams, D.J.+ Morfill, G. Bewick, A.+ Strong pitch angle diffusion and magnetospheric solar protons Nonadiabatic particle motion in the magnetosphere Low-energy solar protons in the pseudo-trapping region of the magnetosphere 8916

ATS-5 observations of energetic proton injection

1, J.F.	Access of solar protons to the earth's polar caps	7 1036 10 1502
m, J.G.+ cacker, C.R.+	Solar and geomagnetic modulation of low-energy secondary cosmic ray electrons Measurement of geomagnetic cutoff rigidities and particle fluxes below geomagnetic	10 1515
ong, T.W.+	cutoff near Palestine, Texas Calculations of neutron flux spectra induced in the earth's atmosphere by galactic	16 2715
, M.+	cosmic rays Time dependent worldwide distribution of atmospheric neutrons and of their products, 1,	16 2727
E.S.+	Fast neutron observations Time dependent worldwide distribution of atmospheric neutrons and of their products, 2,	16 2741
1, R.B.+	Calculation Time dependent worldwide distribution of atmospheric neutrons and of their products, 3,	16 2763
1.a, K.+	Neutrons from solar protons Calculated cosmic ray neutron monitor response to solar modulation of galactic	16 3013
n, E.S.+	cosmic rays Source of inner belt protons	22 4675
1, G.+	Uneven illumination of the polar caps by solar protons: Comparison of different particle entry models	25 5449
⇔s, T.	Solar flare cosmic ray increase of August 7, 1972 (L) Solar flare cosmic ray increase of August 7, 1972 (L) Solar flare cosmic ray increase of August 7, 1972 (L)	31 7537 34 7942
on, L.E.+ sr, D.M.+	Energy spectrum and flux of 3- to 20-MeV neutrons and 1- to 10-MeV gamma	34 7959
a, J.E.	Direct accretion of ³ He and ³ H from cosmic rays	34 8330
COORDINATE S	YSTEM	
weer, J.G.+	Drift shell splitting by internal geomagnetic multipoles	1 133 13 2324
m, H.H.+ G.D.+	Geomagnetic potential in offset dipole coordinates Jupiter's radiation belts and the sweeping effect of its satellites	16 2793 31 7515
:-, R.H.+	Substorm effects in auroral spectra	•
TIC STORMS	and a second of the second of	1 . 37
ams, D.J.+	Strong pitch angle diffusion and magnetospheric solar protons Semiannual variation of geomagnetic activity Semiannual variation of geomagnetic activity	1 92 1 109
E.W., Jr.+	Semiannual variation of geomagnetic activity $S_{\rm Sm} = 10^{-1}$ Substorm variations of the magnetotail plasma sheet from $X_{\rm Sm} = 6$ $R_{\rm E}$ to $X_{\rm Sm} = -60$ $R_{\rm E}$ Observed relationships between electric fields and auroral particle	1 145
	precipitation	1 337
In, J.V. C.G.	Geomagnetic and solar data Whistler observations of the depletion of the plasmasphere during a magnetospheric substorm	4 672 4 780
cin, J.V.	Geomagnetic and solar data	7 1058 7 1064
ma, P.F.+ H.I., Jr.+	Observations of ring current protons at low alloues. Electron pitch angle distributions throughout the magnetosphere as observed on Ogo 5 Relationship of southward-drifting auroral arcs to the magnetospheric electric field	7 1100
Tao, S.+	and substorm activity Detection of solar wind at synchronous orbit (L)	7 1195 7 1198
sano, V.	On the March 7-8, 1970, event (L)	7 1243 7 1244
oln, J.V. oln, J.V.	Geomagnetic and solar data Geomagnetic and solar data Magnetic field signatures of substorms on high-latitude field lines in the nighttime	10 1553
field, D.H.	Magnetic field signatures of substitute of the magnetosphere commencement absorption and the sudden commencement Conjugate asymmetries in sudden commencement absorption and the sudden commencement	
lips, J.		10 1563 10 1572
mra, T.A.+	absorption event of Federal Populary Popularies and electron precipitation at mid-latitudes VLF propagation disturbances and electron precipitation at mid-latitudes Distributions and characteristics of high-latitude field-aligned electron	. 10 1615
o, F.W.	precipitation precipitation is accompanied regions produced by storm	10 1668
om, R.R.	sudden commencements and sudden imply storm at high rigidities (L)	10 1707
er, F.S.	On the relationship between the grown	10 1719
wπ, R.R.	and magnetospheric convection (L) Observations of narrow microburst trains in the geomagnetic storm of August 4-6, 1972 (L)	10 1727 10 1739
coln, J.V.	Geomagnetic and solar data Field-aligned currents, plasma waves, and anomalous resistivity in the	13 2133
dricks, R.W.+	disturbed polar cusp Observation of a current-driven plasma instability at the outer zone-plasma	13 2150
rf, F.L.+	sheet boundary	13 2214
ley, M.C.+	Electric field and plasma density oscillations Hall current two-stream instability in the auroral E region Magnetic storm characteristics of the thermosphere	13 2251 13 2375
r, H.G.+	Geomagnetic and solar data respection convection?	16 2837 16 2867
coniti, F.V.+ ffman, R.A.+	Can the ionosphere regulate magnetic morphology	16 2917
adricks, R.W.+	Ion cyclotron waves observed and a westward traveling surge from the	16 3020 16 3027
ger, C.D.+		16 3044
msofu, SI.+ Pherron, R.L.		
"Pherron, R.L.+	of the magnetosphere Satellite studies of magnetospheric substorms on August 15, 1968, 2, Solar Satellite studies of magnetosphere wind and outer magnetosphere	16 3054
irpenter, D.L.+	wind and outer magnetosphere wind and outer magnetospheric substorms on August 15, 1968, 3, Some Satellite studies of magnetospheric convection features of magnetospheric convection features of magnetospheric substorms on August 15, 1968, 4, Ogo	16 3062
·Pherron, R.L.+	Satellite studies of magnetospheric substorms on August 13, 1000, 7, 5	16 3068
velson, M.G.+	Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetic substorms on August 15, 1968, 5, Energetic Satellite studies of magnetic substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic Satellite substorms on August 16, 1968, 5, 1968, 5, 1968, 5, 1968, 5, 1968, 5, 1968, 5, 1968, 5, 1968, 5,	16 3079
	electrons, spatial boundary	

```
Satellite studies of magnetospheric substorms on August 15, 1968, 6, 0go 5 energetic electron observations--Pitch angle distributions on the nighttime magnetosphere
                                  Satellite studies of magnetospheric substorms on August 15, 1968, 7, Ogo 5
Buck, R.M.+
                                    energetic proton observations -- Spatial boundaries
                                  Satellite studies of magnetospheric substorms on August 15, 1968, 8, 0go 5 plasma
Scarf, F.L.+
                                    wave observations
                                  Satellite studies of magnetospheric substorms on August 15, 1968, 9, Phenomenological
McPherron, R.L.+
                                    model for substorms
                                  Traveling regions of high solar wind density observed in early August 1972 (L) Synoptic survey for the neutral line in the magnetotail during the substorm expansion
Croft, T.A.
Nishida, A.+
                                 ULF magnetic fluctuations in the plasma sheet as recorded by the Explorer 34 satellite Interaction between high-frequency turbulence and magnetospheric micropulsations
Garrett, H.B.
Hagège, K.+
Park, C.G.+
Hirshberg, J.+
Fukunishi, H.
                                  Distortions of the nightside ionosphere during magnetospheric substorms
                                  Geomagnetic activity at sector boundaries
                                  Occurrence of IPDP events accompanied by cosmic noise absorption in the course of
                                    proton aurora substorms (L)
                                  Geomagnetic and solar data
S<sup>3</sup>-A spacecraft and experiment description
Lincoln, J.V.
Longanecker, G.W.
                                 Magnetic storm inflation in the evening sector
Ring current particle distributions during the magnetic storms of December 16-18, 1971
Cahill, L.J., Jr.
Smith, P.H.+
Konradi, A.+
                                  Energy spectra and pitch angle distributions of storm-time and substorm injected
                                    protons
                                 Plasma wave observations near the plasmapause with the \rm S^3-A satellite ELF observations during the December 1971 storm Particle and field observations from Explorer 45 during the December 1971 magnetic
Anderson, R.R.+
Parady, B.+
Hoffman, R.A.
                                    storm period
                                  Relation between coronal \lambda 5303 intensity, recurrent geomagnetic storms, and solar
Gulbrandsen, A.
                                  sector structure (L)
Seasonal variation of auroral infrasonic wave activity (L)
Wilson, C.
Hones, E.W., Jr.+
Burke, W.J.+
Rothwell, P.L.+
                                 Magnetotail plasma flow measured by Vela 4A Effects on the geomagnetic tail at 60~R_{E} of the geomagnetic storm of April 9, 1971 Enhancement of 0.24- to 0.96-Mev trapped protons during the May 25, 1967, magnetic
                                  Periodically structured Pc 1 micropulsations during the recovery phase of intense
Heacock, R.R.+
                                    magnetic storms
Rostoker, G.+
                                  Response of the polar electrojets in the evening sector to polar magnetic substorms
                                  Current flow in auroral loops and surges inferred from ground-based magnetic
Kisabeth, J.L.+
                                    observations
Kane, R.P.
                                  Global evolution of the DS component during geomagnetic storms
                                 Azimuthal drift and precipitation of electrons into the South Atlantic geomagnetic
Abdu, M.A.+
                                    anomaly during an sc magnetic storm (L)
                                 High-latitude proton precipitation and light ion density profiles during the magnetic storm initial phase
Observation of plasma flow in the neutral sheet at lunar distance during two magnetic
Burch, J.L.
Burke, W.J.+
                                    rays (L)
Lincoln, J.V.
                                  Geomagnetic and solar data
Akasofu, S.-I.+
                                  Magnetotail and boundary layer plasmas at a geocentric distance of {\sim}18~R_{K}: Vela
                                     5 and 6 observations
Krimigis, S.M.+
                                  Measurements of geomagnetically trapped alpha particles, 1968-1970, 1, Quiet time
                                    distributions
Yasuhara, F,+
                                  Equatorward shift of the cleft during magnetospheric substorms as observed by
                                     Isis 1
Swift, D.W.+
                                  Direct comparison between satellite electric field measurements and the visual
                                    aurora
Akasofu, S.-I.+
                                  Auroral substorms and the interplanetary magnetic field
Hruska, A.
                                  Structure of high-latitude irregular electron fluxes and acceleration of particles
                                     in the magnetotail
Eather, R.H.+
                                  Substorm effects in auroral spectra
Matthews, D.L.+
Caan, M.N.+
                                  Observations of relativistic electron precipitation at L = 6 (L)
                                  Solar wind substorm-related changes in the lobes of the geomagnetic tail
Bogott, F.H.+
                                  ATS-5 observations of energetic proton injection
Bogott, F.H.+
                                  Nightside energetic particle decreases at the synchronous orbit
Arthur, C.W.+
                                 Micropulsations in the morning sector, 1, Ground observations of 10- to 45-second waves, Tungsten, Northwest Territories, Canada
Verzariu, P.
                                  Observations of storm-associated low-energy protons, alpha particles, and Z \geq 3 nuclei within the magnetosphere on March 8, 1970 (L) Auroral electrojets and evening sector electron dropouts at synchronous orbit (L)
Erickson, K.N.+
Tuohy, I.R.+
                                  Observation of electrons at mid-latitude during a magnetic storm (L)
MAGNETIC TAIL
Hones, E.W., Jr.+
West, H.I., Jr.+
                                  Substorm variations of the magnetotail plasma sheet from X_{\rm SM} = -6 R_E to X_{\rm SM} = -60 R_E Electron pitch angle distributions throughout the magnetosphere as observed on
                                    Ogo 5
Fairfield, D.H.
                                  Magnetic field signatures of substorms on high-latitude field lines in the nighttime
                                    magnetosphere
McPherron, R.L.+
                                  Satellite studies of magnetospheric substorms on August 15, 1968, 4, Ogo 5 magnetic
                                     field observations
                                  Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic electrons, spatial boundaries, and wave-particle interactions at Ogo 5 Satellite studies of magnetospheric substorms on August 15, 1968, 6, Ogo 5 energetic electron observations--Pitch angle distributions on the nighttime magnetosphere Satellite studies of magnetospheric substorms on August 15, 1968, 9, Phenomenological
Kivelson, M.G.+
West, H.I., Jr.+
McPherron, R.L.+
                                     model for substorms
Knott, K.
Kan, J.R.
                                   Electrostatic charging of the lunar surface and possible consequences (L)
                                  On the structure of the magnetotail current sheet
```

Synoptic survey for the neutral line in the magnetotail during the substorm

Nishida, A.+

expansion phase

West, H.I., Jr.+

∰, H.B.	ULF magnetic fluctuations in the plasma sheet as recorded by the Explorer 34 satellite	19 3799
	Hydromagnetic eigenoscillations in the magnetospheric tail $({ m L})$	19 3965 25 5463
W T L	Magnetotail plasma flow measured by Vela 4A Effects on the geomagnetic tail at 60 Rg of the geomagnetic storm of April 9, 1971 Observation of plasma flow in the neutral sheet at lunar distance during two	25 5477 28 6790
	magnetic bays (L) Magnetotail and boundary layer plasmas at a geocentric distance of ${\sim}18~R_E$: Vela 5	
	and 6 observations	31 7257 31 7292
,., A. 1 1, C.T.	Structure of high-latitude irregular electron fluxes and acceleration of particles in the magnetotail Internal structure of the geomagnetic neutral sheet (D)	31 7509 31 7572 34 8087
	Solar wind substorm-related changes in the lobes of the geomagnetic tail Plasma sheet at lunar distance: Characteristics and interactions with the lunar surface	34 8097
© OPAUSE		40 1515
cock, P.C.+	Magnetosheath observations at high northern latitudes by Heos 2 (L) Can the ionosphere regulate magnetospheric convection?	10 1715 16 2837 28 6549
emn, R.L.+	Speed and thickness of the magnetopause Torque applied by the solar wind on the tilted magnetosphere	34 7968
ne, B.R.+	Explorer 18 study of the stability of the magnetopause using a Kelvin-Helmholtz instability criterion	34 8078
COSHEATH		7 1195
est, S.E.	Detection of solar wind at synchronous orbit (L) Magnetosheath observations at high northern latitudes by Heos 2 (L) Magnetosheath	10 1715 19 3714
sock, P.C.+ sano, V.+ ser, J.D.+	Magnetosheath observations at ingin not make the carth's magnetic field, 1, Magnetosheath Solar wind interaction with the earth's magnetic field, 1, Magnetosheath Electron observations in the solar wind and magnetosheath	28 6535
TOSPHERIC CONFIGURA	ATION	1 92
m11, C.T.+	Semiannual variation of geomagnetic activity	1 133
mer, J.G.+	Semiannual variation of geometric geomagnetic multipoles Drift shell splitting by internal geomagnetic multipoles Nonadiabatic particle motion in the magnetosphere	4 588 4 597
- k, A.+	Low-energy solar protons in the pseudo-trapping region of the magnetosphere	4 659 7 1036
aek-Nielsen, H.C.+	Access of solar protons to the earth's polar caps Electron pitch angle distributions throughout the magnetosphere as observed	
H.I., Jr.+	on Ogo 5 Magnetic field signatures of substorms on high-latitude field lines in the	7 1064
wield, D.H.		10 1553
H.I., Jr.+	Satellite studies of magnetospheric Substorms on August 15, some on the nighttime energetic electron observations-Pitch angle distributions on the nighttime	16 3093 16 3182
esira, M. . ison, M.G.+	Quiet time magnetospheric field depression at 2.5-50 by Dependence of the polar cusp on the north-south component of the interplanetary	19 3761
(ida, A.+	magnetic field Synoptic survey for the neutral line in the magnetotail during the substorm	19 3782
	expansion phase ULF magnetic fluctuations in the plasma sheet as recorded by the Explorer 34	19 3799
ett, H.B.	satellite Polar cap electric field distributions related to interplanetary magnetic	19 4001
ell, C.T.+	field direction (D) Polar cap electric field distributions related to interplanetary magnetic	19 4003
oner, J.P.	field direction (K)	22 4724
ull, L.J., Jr. Hill, G.+	Marian illumination of the polar caps of source	25 5449 25 5795
O.	different particle entry models	31 7572
ish, F.D.+ sell, C.T.	Internal structure of the geomagnetic magnetosphere	34 7968 34 8087
egiannis, M.D.	Solar wind substorm-related thanger than the solar wind substorm distance: Characteristics and interactions with the	34 8097
h, F.J.+	1 mor curtace	34 8351 34 8373
witz, L.+ .ckson, K.N.+	Geomagnetic secular change, 1964-1970, from satellite r and observations orbit (L) Auroral electrojets and evening sector electron dropouts at synchronous orbit (L)	
SMA INSTABILITIES		1 181 4 769
inca, A.L.	Whistler modulational instability Nonlinear theory of plasma instability at $(n+1/2)\Omega_{\mathcal{C}}$ (L) Nonlinear theory of plasma instability at $(n+1/2)\Omega_{\mathcal{C}}$ and its relation to	
nbu, M.	Indirect method for measuring of instabilities (L) nonlinear saturation of type I instabilities (L)	4 772 7 1082 7 1203
ung, T.S.T.+	High-frequency electrostatic waves in the frequency electrostatic turbulent loss of ring current protons (L) Electrostatic turbulent loss of ring current protons (L) Ultralow frequency fluctuations at the polar cusp boundaries (L)	7 1206 10 1581
Angelo, N.	Ultraiow requests of radar echoes associated with a visual auroral form: VHF Doppler spectra of radar echoes associated with a visual auroral form:	10 1681
.1sley, B.B.+	VHF Doppler spectra of radar echoes associated when the property of Observations and implications trains in the geomagnetic storm of	
rown, R.R.	Observations of narrow microburst trains and the	10 1727
cedricks, R.W.+	August 4-6, 1972 (L) Field-aligned currents, plasma waves, and anomalous resistivity in the disturbed polar cusp	13 2133 13 2142
70115, L.R.+	disturbed polar cusp Equilibrium structure of radiation belt electrons	89
		- 0

```
Observation of a current-driven plasma instability at the outer zone-plasma
Scarf, F.L.+
                                  sheet boundary
                                Plasma waves artificially induced in the ionosphere
                               Electric field and plasma density oscillations due to the high-frequency hall current two-stream instability in the auroral E region Unified theory of type I and II irregularities in the equatorial electrojet On the cause of equatorial spread F (L) Theory and computer simulation of whistler turbulence and velocity space
Jones, T.W.+
Kelley, M.C.+
Sato, T.
Hanson, W.B.+
Ossakow, S.L.+
                                diffusion in the magnetospheric plasma

Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic electrons, spatial boundaries, and wave-particle interactions at 0go 5
Kivelson, M.G.+
                                Satellite studies of magnetospheric substorms on August 15, 1968, 8, Ogo 5 plasma
Scarf, F.L.+
                                   wave observations
                                Interaction between high-frequency turbulence and magnetospheric micropulsations Simulation of gyroresonant electron-whistler interactions in the outer radiation
Hagège, K.+
Ossakow, S.L.+
                                belts (L)
Spread E caused by cross-field instability
                                Observations of proton spectra (1.0 \le E_p \le 300 \text{ keV}) and fluxes at the plasmapause Plasma wave observations near the plasmapause with the S<sup>3</sup>-A satellite
Williams, D.J.+
Anderson, R.R.+
                                ELF observations during the December 1971 storm
Particle and field observations from Explorer 45 during the December 1971
Parady, B.+
Hoffman, R.A.
                                magnetic storm period
Magnetospheric implications of the nonlinear whistler instability obtained in
Cuperman, S.+
                                a computer experiment (L)
Periodically structured Pc 1 micropulsations during the recovery phase of intense
Heacock, R.R.+
                                  magnetic storms
                                Morphology of the magnetospheric barium release
Mende, S.B.
Maggs, J.E.
                                Diffusion of ring current particles by low-frequency long-wavelength electrostatic
                                  oscillations
                                Plasma oscillations at 2-3 millihertz at 6.6 earth radii (L)
Baxter, D.+
                                Nonlinear saturation of the gradient drift instability in the equatorial electrojet (L)
Rognlien, T.D.+
                                Quiet auroral arcs and electrodynamic coupling between the ionosphere and the
Sato, T.+
                                   magnetosphere, 1
Holzer, T.E.+
                                Quiet auroral arcs and electrodynamic coupling between the ionosphere and the
                                  magnetosphere, 2
                                Computer simulation of cold plasma effects on the whistler instability for
Cuperman, S.+
                                  geostationary orbit plasma parameters
Balsley, B.B.+
Hruska, A.
                                Radar observations of two-dimensional turbulence in the equatorial electrojet Structure of high-latitude irregular electron fluxes and acceleration of
                                particles in the magnetotail
Finite β drift Alfvén instability
Chance, M.S.+
                                Observations of relativistic electron precipitation at L=6 (L)
Matthews, D.L.+
Buti, B.
                                Effects of solar wind composition, anisotropy, and streaming on ordinary mode electromagnetic instability
                                Explorer 18 study of the stability of the magnetopause using a Kelvin-Helmholtz
Boller, B.R.+
                                  instability criterion
                                Electromagnetic radiation trapped in the magnetosphere above the plasma frequency 
Excitation of ion resonances by the Isis 2 HF transmitter
Gurnett, D.A.+
Palmer, F.H.+
Lucas, C.+
                                Cyclotron resonance wave amplification in the magnetosphere and energetic particle
                                   stability
Gendrin, R.
                                Nonlinear amplifier device of geophysical size (L)
PLASMA MOTION, CONVECTION, OR CIRCULATION
Gurnett, D.A.+
                                Observed relationships between electric fields and auroral particle precipitation
Perkins,
                                Spread F ionospheric currents
Park, C.G.
                                Whistler observations of the depletion of the plasmasphere during a magnetospheric
                                   substorm
                                Deformation and striation of plasma clouds in the ionosphere, 1
Deformation and striation of plasma clouds in the ionosphere, 2, Numerical simulation
Perkins, F.W.+
Zabusky, N.J.+
                                  of a nonlinear two-dimensional model
                                Ogo 6 measurements of supercooled plasma in the equatorial exosphere
Hanson, W.B.+
Hanson, W.B.+
Nambu, M.
                                Large N; gradients below the equatorial F peak Electrostatic turbulent loss of ring current protons (L)
Balsley, B.B.+
                                VHF Doppler spectra of radar echoes associated with a visual auroral form:
                                  Observations and implications
Mozer, F.S.
                                On the relationship between the growth and expansion phases of substorms and
                                  magnetospheric convection (L)
Bates, H.F.+
Fredricks, R.W.+
                                Correspondence of main trough ion temperatures with horizontal drift speed (L) Field-aligned currents, plasma waves, and anomalous resistivity in the disturbed
                                   polar cusp
Lyons, L.R.+
Scarf, F.L.+
                                Equilibrium structure of radiation belt electrons
                                Observation of a current-driven plasma instability at the outer zone-plasma
                                  sheet boundary
Bering, E.A.+
Hanson, W.B.+
                                Split Langmuir probe measurements of current density and electric fields in an aurora On the cause of equatorial spread F (L)
Coroniti, F.V.+
Jaggi, R.K.+
Inoue, Y.
                                Can the ionosphere regulate magnetospheric convection?
                                Self-consistent calculation of the motion of a sheet of ions in the magnetosphere
                                Wave polarizations of geomagnetic pulsations observed in high latitudes on the
                                  earth's surface
Carpenter, D.L.+
                                Satellite studies of magnetospheric substorms on August 15, 1968, 3, Some features
                                  of magnetospheric convection
                                Satellite studies of magnetospheric substorms on August 15, 1968, 7, Ogo 5 energetic proton observations--Spatial boundaries
Buck, R.M.+
McPherron, R.L.+
                                Satellite studies of magnetospheric substorms on August 15, 1968, 9, Phenomenological
                                  model for substorms
                                Ion heating in thermal plasma flows (L)
Dependence of the polar cusp on the north-south component of the interplanetary
Banks, P.M.
Kivelson, M.G.+
```

magnetic field

lrd, N.C.+ mms, D.J.+ _ E.W., Jr.+	Double floating probe measurements on S^3 -A Observations of proton spectra (1.0 $\leq E_p \leq 300$ keV) and fluxes at the plasmapause Magnetotail plasma flow measured by Vela $\frac{4A}{A}$	22 4745 22 4751 25 5463 25 5751
S.B. on, D.+	Morphology of the magnetospheric barium release Preliminary analysis of NASA optical data obtained in barium ion cloud experiment of September 21, 1971	25 5769
, F.S.+ fu, SI.+	Response of polar cap convection to the interplanetary magnetic field (L) Magnetotail and boundary layer plasmas at a geocentric distance of ~18 RE: Vela 5	28 6784 31 7257
, D.P.	and 6 observations Study of the electric field in an open magnetospheric model	31 7292
-PERIOD (1 DAY) VA	ARIATIONS OF MAGNETIC FIELD	1 777
ln, J.V. n, R.L.	Geomagnetic and solar data Use of electron and proton beams for production of very low frequency and	1 337 4 684
in, N.+	hydromagnetic emmissions Fine structure of Pc 1 pulsations, 1, Experimental evidence (L)	4 763 4 780
in, J.V.	Geomagnetic and solar data Geomagnetic and solar data	7 1243 7 1244
in, J.V.	Geomagnetic and solar data Geomagnetic and solar data	10 1739 13 2375
ln, J.V. , Y.	Geomagnetic and solar data Wave polarizations of geomagnetic pulsations observed in high latitudes on the earth's surface	16 2959 16 3040
D. rron, R.L.	Magnetic field of a horizontal current above a conducting earth Satellite studies of magnetospheric substorms on August 15, 1968, 1, State of	16 3044
rron, R.L.+	magnetosphere Satellite studies of magnetospheric substorms on August 15, 1968, 4, Ogo 5	16 3068
A,+	magnetic field observations Fig. 2 tructure of Pc 1 pulsations, 2. Theoretical interpretation (L)	16 3176
da, A.+	Synoptic survey for the neutral line in the magnetotall adding the	19 3782
ett, H.B.	ULF magnetic fluctuations in the plasma sheet as recorded by the Explorer 34 satellite	19 3799 19 3806
e, K.+ rotti, L.J.+	Explorer 34 satellite Interaction between high-frequency turbulence and magnetospheric micropulsations ULF geomagnetic power near $L=4$, 1, Quiet day power spectra at conjugate points during December solstice	19 3816 19 3952
berg, J.+	Geomagnetic activity at sector boundaries Occurrence of IPDP events accompanied by cosmic noise absorption in the course of	19 3981
Jn, J.V.	proton aurora substorms (L) Geomagnetic and solar data ULF geomagnetic power near. $L = 4$, 2, Temporal variation of the radial diffusion	19 4005
erotti, L.J.+	OLF geomagnetic puber heal. 2 - 7, 2, coefficient for relativistic electrons Particle and field observations from Explorer 45 during the December 1971	22 4600 22 4771
man, R.A.	magnetic storm period Periodically structured Pc 1 micropulsations during the recovery phase of intense	25 5524
ock, R.R.+	magnetic storms	25 5585 25 5698
R.P. n, R.R. oln, J.V.	Sudden commencement and sudden impulse absorption events as the	28 6832
ur, C.W.+	Geomagnetic and solar data Micropulsations in the morning sector, 1, Ground observations of 10- to 45-second waves, Tungsten, Northwest Territories, Canada	34 8180
PPED PARTICLES	control golden protons	1 37
tiams, D.J.+ derer, J.G.+	Strong pitch angle diffusion and magnetospheric solar protons Drift shell splitting by internal geomagnetic multipoles	1 133 4 588
fill, G. ick, A.+	Nonadiabatic particle motion in the magnetosphere Low-energy solar protons in the pseudo-trapping region of the magnetosphere Relations between ionospheric electric fields and energetic trapped and	4 597 4 630
er, F.S.+	precipitating electrons	4 659 7 1058
era, P.F.+	C.+ Differences in autoral intensity of the Charlest of the Ch	7 1064
t, H.I., Jr.+	000.5	13 2142 13 2150
rf, F.L.+	Equilibrium structure of radiation belt electrons Observation of a current-driven plasma instability at the outer zone-plasma sheet boundary Existence of geomagnetically trapped electrons at altitudes below the inner	13 2341
akawa, S.+	Existence of geomagnetically trapped electrons of the radiation belt (L) Calculations of neutron flux spectra induced in the earth's atmosphere by	
strong, T.W.+	galactic cosmic rays	16 2715 16 2793
d, G.D.+ velson, M.G.+	Satellite studies of magnetospheric satellite interactions at Ogo 5	16 3079
st, H.I., Jr.+	Satellite studies of magnetosphore energetic electron observations Pitch angle distributions on the nighttime	16 3093
ck, R.M.+	magnetosphere Setallite studies of magnetospheric substorms on August 15, 1968, 7, Ugo 5	16 3103
hof, W.L.+	energetic proton observers and energy spectra of electrons in the inner	22 4568
mzerotti, L.J.+	radiation belt radiation belt ULF geomagnetic power near $L=4$, 2, Temporal variation of the radial diffusion coefficient for relativistic electrons	22 4600 22 4675
aflin, E.S.+	Source of inner belt protons Source of inner belt protons The second of	22 4719 22 4724
itz, T.A.+ hill, L.J., Jr.	Initial observations of geometric process of Magnetic storm inflation in the evening sector Magnetic storm inflation in the evening the magnetic storms of Ring current particle distributions during the magnetic storms of	22 4731
ith, P.H.+	December 16-18, 1971	89

```
Energy spectra and pitch angle distributions of storm-time and substorm injected
Konradi, A.+
                             Observations of proton spectra (1.0 \le E_p \le 300~{\rm keV}) and fluxes at the plasmapause Particle and field observations from Explorer 45 during the December 1971 magnetic
Williams, D.J.+
Hoffman, R.A.
                                storm period
                             Enhancement of 0.24- to 0.96-Mev trapped protons during the May 25, 1967, magnetic
Rothwell, P.L.+
                             Geomagnetically trapped alpha particles, 2, Inner zone Experimental test to determine the origin of geomagnetically trapped radiation (L) Azimuthal drift and precipitation of electrons into the South Atlantic geomagnetic
Blake, J.B.+
Blake, J.B.
Abdu, M.A.+
                                anomaly during an sc magnetic storm (L)
                             Diffusion of ring current particles by low-frequency long-wavelength electrostatic
Maggs, J.E.
                                oscillations
                             Pitch angle diffusion in the radiation belts (L)
Lyons, L.R.
                             Measurements of geomagnetically trapped alpha particles, 1968-1970, 1, Quiet time
Krimigis, S.M.+
                               distributions
                             Upward Birkeland currents (L)
Rassbach, M.E.
                             Enhancement of artificial electron belts through interactions of electrons with ion
Davidson, G.T.
                               cyclotron waves (L)
                             Measurements of the atmospheric neutron leakage rate
Lockwood, J.A.+
                             ATS-5 observations of energetic proton injection
Nightside energetic particle decreases at the synchronous orbit
Bogott, F.H.+
Bogott, F.H.+
                             Effect of magnetic field gradient on motion of ions resonating with ion
Cladis, J.B.
                                cyclotron waves
Etcheto, J.+
Lucas, C.+
                             Self-consistent theory of magnetospheric ELF hiss
                             Cyclotron resonance wave amplification in the magnetosphere and energetic
                                particle stability
                             Observations of storm-associated low-energy protons, alpha particles, and Z > 3 nuclei within the magnetosphere on March 8, 1970 (L)
Verzariu, P.
                             Auroral electrojets and evening sector electron dropouts at synchronous orbit (L) Observation of electrons at mid-latitude during a magnetic storm (L)
Erickson, K.N.+
Tuohy, I.R.+
WAVE PROPAGATION
                             Whistler modulational instability
Brinca, A.L.
                             Incoherent Cerenkov radiation in the magnetosphere and the ground observations of
                                VLF hiss
Fredricks, R.W.+
                             Recent studies of magnetospheric electric field emissions above the electron
                                gyrofrequency
Young, T.S.T.+
                             High-frequency electrostatic waves in the magnetosphere
Thorne, R.M.+
Fredricks, R.W.+
                             Plasmaspheric hiss
                             Ion cyclotron waves observed in the polar cusp
Scarf, F.L.+
                             Satellite studies of magnetospheric substorms on August 15, 1968, 8, Ogo 5
                               plasma wave observations
                             Fine structure of Pc 1 pulsations, 2, Theoretical interpretation
ELF observations during the December 1971 storm
Roux, A.+
Parady, B.+
Burtis, W.J.
                             Electron concentrations calculated from the lower hybrid resonance noise band
                               observed by Ogo 3
                             Interaction between whistlers and quasi-periodic VLF emissions 
Electromagnetic radiation trapped in the magnetosphere above the plasma frequency
Ho, D.
Gurnett, D.A.+
WHISTLERS
Brinca, A.L.
                             Whistler modulational instability
                             Incoherent Cerenkov radiation in the magnetosphere and the ground observations of
Rao, M.+
                                VLF hiss
Park, C.G.
                             Whistler observations of the depletion of the plasmasphere during a magnetospheric
                                substorm
Potemra, T.A.+
Thorne, R.M.+
Scarf, F.L.+
                             VLF propagation disturbances and electron precipitation at mid-latitudes
                             Plasmaspheric hiss
                             Association of magnetospheric whistler dispersion characteristics with changes in
                                local plasma density
                             Additional results from an Ogo 6 experiment concerning ionospheric electric and electromagnetic fields in the range 20 Hz to 540 kHz
Laaspere, T.+
Ossakow. S.L.+
                             Theory and computer simulation of whistler turbulence and velocity space
                             diffusion in the magnetospheric plasma
Satellite studies of magnetospheric substorms on August 15, 1968, 3, Some
Carpenter, D.L.+
                                features of magnetospheric convection
Hagège, K.+
                              Interaction between high-frequency turbulence and magnetospheric micropulsations
Ossakow, S.L.+
                             Simulation of gyroresonant electron-whistler interactions in the outer radiation
                                belts (L)
Helliwell, R.A.+
Anderson, R.R.+
Cuperman, S.+
                              Whistler-induced amplitude perturbation in VLF propagation
                             Plasma wave observations near the plasmapause with the S3-A satellite
                             Magnetospheric implications of the nonlinear whistler instability obtained in a
                                computer experiment
Burtis, W.J.
                              Electron concentrations calculated from the lower hybrid resonance noise band
                             observed by Ogo 3
Balloon and VLF whistler measurements of electric fields, equatorial electron
Mozer, F.S.+
                                density, and precipitating particles during a barium cloud release in the
                                magnetosphere
                             Interaction between whistlers and quasi-periodic VLF emissions
Feedback model of cyclotron interaction between whistler-mode waves and energetic
Helliwell, R.A.+
                                electrons in the magnetosphere
Cuperman, S.+
                             Computer simulation of cold plasma effects on the whistler instability for
                                geostationary orbit plasma parameters
Lucas, C.+
                             Cyclotron resonance wave amplification in the magnetosphere and energetic particle
                                stability
Gendrin, R.
                             Nonlinear amplifier device of geophysical size (L)
```

RUMENTS AND TECHNIQUES			
	Use of electron and proton beams for production of very low frequency and hydromagnetic emmissions	4	684
sen, W.C.+	Ion-impact-produced secondary electron emission and its effect on space histamentation Properties of the satellite photoelectron sheath derived from photoemission	16	1145 2885
anecker, G.W.+	laboratory measurements S3-A spacecraft and experiment description		4711 4745
	Double floating probe measurements on S ³ -A Evaluation of experimental errors in electromagnetic wave measurements aboard	25	5507
	satellites NASA/Max Planck Institute barium ion cloud project Preliminary analysis of NASA optical data obtained in barium ion cloud experiment		5726
	Preliminary analysis of NASA optical data obtained in Section 1971 of September 21, 1971 Experimental test to determine the origin of geomagnetically trapped radiation (L)		5769 5822
e, J.B. crin, R.	Experimental test to determine the origin of geomagnetically trapped laditation (-) Non-linear amplifier device of geophysical size (L)	34	8387
FRAL OR MISCELLANEOUS			
coln, J.V.	Geomagnetic and solar data	1	337 780
coln, J.V. coln, J.V.	Geomagnetic and solar data Geomagnetic and solar data		1243 1244
oln, J.V.	Geomagnetic and solar data Inverse theorem about the magnetic field line velocity	10	1702
ren, D.P. Coln, J.V.	Geomagnetic and solar data		1739 2375
oln, J.V.	Geomagnetic and solar data Millisecond time scale atmospheric light pulses associated with solar and		
i man, H.	magnetospheric activity		3033 4005
oln, J.V.	Geomagnetic and solar data Predawn enhancement of 6300-A emission observed near the plasmapause from the	22	4689
	Isis-2 spacecraft		5726
nnce, W.A.+	Geophysical disturbance environment during the NASAYAFE Dallum 1515455 55 55	25	5732
ring, E.R.+	on September 21, 1971 Yield and ion distribution for the barium cloud at 31,000 kilometers,	25	5745
X	September 21, 1971	25	5785
1:, F. Poer, D.+	Plasma oscillations at 2-3 millihertz at 0.0 earth fault (b)		6798 6832
coln, J.V.	Geomagnetic and solar data Computer simulation of cold plasma effects on the whistler instability for	31	7372
erman, S.+	geostationary orbit plasma parameters Particle acceleration by an electrostatic wave with spatially increasing		
omberg, H.W.+	phase velocity		7531
compar, D.M.+	Energy spectrum and flux of 3- to 20-MeV neutrons and 1- to 15 to 15	34	7959
th, F.J.+	Plasma sheet at lunar distance: Characteristics and Interactions		8097 8167
mer, F.H.+	lunar surface Excitation of ion resonances by the Isis 2 HF transmitter Lunar effect in the occurrence of conjugate echoes on topside sounder ionograms Lunar effect in the occurrence of prophysical size (L)	34	8251
drin, R.	Lunar effect in the occurrence of conjugate control of the Non-linear amplifier device of geophysical size (L)	34	8387
NETOSHEATH			
	Detection of solar wind at synchronous orbit (L)		7 1195 0 1715
Forest, S.E. I igecock, P.C.+	Magnetosheath observations at high northern agnetic field, 1, Magnetosheath		9 3714
rmisano, V.+ udder, J.D.+	Solar wind interaction with the solar wind and magnetosheath	. 4	8 6535
GNETOSPHERIC CONFIGUR	ATION		
mssell, C.T.+	a contain of geometric activity		1 92 1 133
mederer, J.G.+	Drift shell splitting by internal geomagnetic		4 588 4 597
orfill, G.			4 659
enback-Nielsen, H.C.+	Differences in auroral intensity at the same		7 1036
ennell, J.F. est, H.I.+	Flactron nitch angle distributions chicagonal		7 1064
airfield, D.H.	on Ogo 5 Magnetic field signatures of substorms on high-latitude field lines in the nighttime magnetosphere	- 1	0 1553
est, H.I., Jr.+	nighttime magnetosphere Satellite studies of magnetospheric substorms on August 15, 1968, 6, Ogo 5 energetic electron observationsPitch angle distributions in the nighttime	1	6 3093
	magnetosphere		6 3182
ngiura, M.	magnetosphere Quiet time magnetospheric field depression at 2.3-3.6 $R_{\rm F}$ (L) Quiet time magnetospheric field depression at 2.3-3.6 $R_{\rm F}$ (L) Dependence of the polar cusp on the north-south component of the interplanetary	1	19 3761
ivelson, M.G.+	magnetic field Synoptic survey for the neutral line in the magnetotail during the substorm		19 3782
ishida, A.+	expansion phase		
arrett, H.B.	expansion phase ULF magnetic fluctuations in the plasma sheet as recorded by the Explorer 34 ULF magnetic fluctuations in the plasma sheet as recorded by the Explorer 34 ULF magnetic fluctuations in the plasma sheet as recorded by the Explorer 34		19 3799
tussell, C.T.+	satellite Satellite lectric field distributions related to interplanetary magnetic Field direction (D)		19 4001
deppner, J.P.	field direction (D) Polar cap electric field distributions related to interplanetary magnetic field direction (R)		19 4003 22 4724
Cahill, L.J., Jr.	field direction (m) Magnetic storm inflation in the evening sector Magnetic storm inflation in the evening sector Uneven illumination of the polar caps by solar protons: Comparison of different Uneven illumination of the		25 5449
Morfill, G.+	particle entry models		25 5795 31 7572
Carish, F.D.+	Experimental test of magnetospheric moderal sheet (D) Internal structure of the geomagnetic neutral sheet (D)		89

```
Torque applied by the solar wind on the tilted magnetosphere
Papagiannis, M.D.
                                     Solar wind substorm-related changes in the lobes of the geomagnetic tail Plasma sheet at lunar distance: Characteristics and interactions with the lunar
Caan, M.N.+
Rich, F.J.+
                                        surface
                                     Geomagnetic secular change, 1964-1970, from satellite F and observatory X, Y, and Z Auroral electrojets and evening sector electron dropouts at synchronous orbit (L)
Hurwitz, L.+
Erickson, K.N.+
PLASMA INSTABILITIES
                                     Whistler modulational instability
Brinca, A.L.
                                     Monlinear theory of plasma instability at (n+1/2) \Omega_g (L) Indirect method for measuring equatorial electrojet currents and its relation to
Weinstock, J.
                                     nonlinear saturation of type I instabilities (L) High-frequency electrostatic waves in the magnetosphere
Young, T.S.T.+
Nambu, M.
                                     Electrostatic turbulent loss of ring current protons (L)
                                     Ultralow frequency fluctuations at the polar cusp boundaries (L)
D'Angelo, N.
Thorne, R.M.+
                                     Plasmaspheric hiss
                                     VHF Doppler spectra of radar echoes associated with a visual auroral form: Observations
Balsley, B.B.+
                                       and implications
                                     Observations of narrow microburst trains in the geomagnetic storm of August 4-6, 1972 (L)
Brown, R.R.
Fredricks, R.W.+
                                     Field-aligned currents, plasma waves, and anomalous resistivity in the disturbed
                                        polar cusp
                                     Equilibrium structure of radiation belt electrons
Lyons, L.R.+
Scarf, F.L.+
                                     Observation of a current-driven plasma instability at the outer zone-plasma sheet
                                        boundary
Jones, T.W.+
Kelley, M.C.+
                                     Plasma waves artificially induced in the ionosphere
                                    Electric field and plasma density oscillations due to the high-frequency Hall current two-stream instability in the auroral E region Unified theory of type I and II irregularities in the equatorial electrojet On the cause of equatorial spread F (L)

Theory and computer simulation of whistler turbulence and velocity space diffusion in the magnetic plants.
Sato, T.
Hanson, W.B.+
Ossakow, S.L.+
                                       in the magnetospheric plasma
                                     Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic electrons, spatial boundaries, and wave-particle interactions at Ogo 5 Satellite studies of magnetospheric substorms on August 15, 1968, 8, Ogo 5 plasma
Kivelson, M.G.+
Scarf, F.L.+
                                        wave observations
                                     Interaction between high-frequency turbulence and magnetospheric micropulsations Simulation of gyroresonant electron-whistler interactions in the outer radiation
Hagège, K.+
Ossakow, S.L.+
                                     belts (L) Spread \it E caused by cross-field instability
Chen, A.A.
                                     Observations of proton spectra (1.0 \le E_p \le 300 kev) and fluxes at the plasmapause Plasma wave observations near the plasmapause with the S<sup>3</sup>-A satellite ELF observations during the December 1971 storm
Williams, D.J.+
Anderson, R.R.+
Parady, B.+
Hoffman, R.A.
                                     Particle and field observations from Explorer 45 during the December 1971
                                        magnetic storm period
Cuperman, S.+
                                     Magnetospheric implications of the nonlinear whistler instability obtained in
                                     a computer experiment (L)
Periodically structured Pc I micropulsations during the recovery phase of intense
Heacock, R.R.+
                                        magnetic storms
Mende, S.B.
                                     Morphology of the magnetospheric barium release
Maggs, J.E.
                                     Diffusion of ring current particles by low-frequency long-wavelength electrostatic
                                        oscillations
Baxter, D.+
Rognlien, T.D.+
                                     Plasma oscillations at 2-3 millihertz at 6.6 earth radii (L)
Nonlinear saturation of the gradient drift instability in the equatorial electrojet (L)
Sato, T.+
                                     Quiet auroral arcs and electrodynamic coupling between the ionosphere and the
                                        magnetosphere, 1
Holzer, T.E.+
                                     Quiet auroral arcs and electrodynamic coupling between the ionosphere and the
                                     magnetosphere, \,2\, Computer simulation of cold plasma effects on the whistler instability for
Cuperman, S.+
                                     geostationary orbit plasma parameters
Radar observations of two-dimensional turbulence in the equatorial electrojet
Structure of high-latitude irregular electron fluxes and acceleration of particles
Balsley, B.B.+
Hruska, A.
                                     in the magnetotail Finite \beta drift Alfvén instability Observations of relativistic electron precipitation at L=6 (L) Effects of solar wind composition, anisotropy, and streaming on ordinary mode
Chance, M.S.+
Matthews, D.L.+
Buti, B.
                                     electromagnetic instability
Explorer 18 study of the stability of the magnetopause using a Kelvin-Helmholtz
Boller, B.R.+
                                         instability criterion
Gurnett, D.A.+
Palmer, F.H.+
Lucas, C.+
                                     Electromagnetic radiation trapped in the magnetosphere above the plasma frequency Excitation of ion resonances by the Isis 2 HF transmitter Cyclotron resonance wave amplification in the magnetosphere and energetic particle
                                         stability
Gendrin, R.
                                     Nonlinear amplifier device of geophysical size (L)
PLASMA MOTION, CONVECTION, OR CIRCULATION
Gurnett, D.A.+
                                     Observed relationships between electric fields and auroral particle precipitation
                                     Spread F and ionospheric currents
Whistler observations of the depletion of the plasmasphere during a magnetospheric
Perkins, F.
Park, C.G.
                                         substorm
Perkins, F.W.+
                                      Deformation and striation of plasma clouds in the ionosphere, 1
                                     Deformation and struction of plasma clouds in the ionosphere, 1
Deformation and struction of plasma clouds in the ionosphere, 2, Numerical simulation
of a nonlinear two-dimensional model
Ogo 6 measurements of supercooled plasma in the equatorial exosphere
Large N<sub>t</sub> gradients below the equatorial F peak
Electrostatic turbulent loss of ring current protons (L)
Zabusky, N.J.+
Hanson, W.B.+
Hanson, W.B.+
Nambu, M.
                                     VHF Doppler spectra of radar echoes associated with a visual auroral form:
Observations and implications
Balsley, B.B.+
```

er, F.S.	On the relationship between the growth and expansion phases of substorms and magnetospheric convection (L)	10 1719
es, H.F.+ Hricks, R.W.+	Correspondence of main trough ion temperatures with horizontal drift speed (L) Field-aligned currents, plasma waves, and anomalous resistivity in the disturbed	10 1723
ns, L.R.+	polar cusp Equilibrium structure of radiation belt electrons Observation of a current-driven plasma instability at the outer zone-plasma	13 2133 13 2142
ing, E.A.+	sheet boundary Split Langmuir, probe measurements of current density and electric fields in	13 2150
son, W.B.+	an aurora On the cause of equatorial spread F (L)	13 2201 13 2353
miti, F.V.+ gi, R.K.+	Can the ionosphere regulate magnetospheric convection? Self-consistent calculation of the motion of a sheet of ions in the magnetosphere Wave polarizations of geomagnetic pulsations observed in high latitudes on the	16 2837 16 2852
	earth's surface Satellite studies of magnetospheric substorms on August 15, 1968, 3, Some features	16 2959
comter, D.L.+	of magnetospheric convection Satellite studies of magnetospheric substorms on August 15, 1968, 7, Ogo 5 energetic	16 3062
₩, R.M.+	nroton observationsSpatial boundaries	16 3103
merron, R.L.+	Satellite studies of magnetospheric substorms on August 15, 1968, 9, Phenomenological model for substorms	16 3131 16 3186
Ms, P.M. Mson, M.G.+	Ion heating in thermal plasma flows (L) Dependence of the polar cusp on the north-south component of the interplanetary magnetic field	19 3761
mard, N.C.+	Double floating probe measurements on S^3 -A Observations of proton spectra (1.0 $\leq E_p \leq 300$ kev) and fluxes at the plasmapause	22 4745 22 4751
liams, D.J.+ E.W., Jr.+ S.B.	Magnetotail plasma flow measured by Vela 4A Morphology of the magnetospheric barium release	25 5463 25 5751
son, D.+	Preliminary analysis of NASA optical data obtained in barium ion cloud experiment	25 5769
er, F.S.+	Response of polar cap convection to the interplanetary magnetic field (L) Magnetotail and boundary layer plasmas at a geocentric distance of ~18 R _E :	28 6784
sofu, SI.+	Vela 5 and 6 observations Study of the electric field in an open magnetospheric model	31 7257 31 7292
rm, D.P.	ARIATIONS OF MAGNETIC FIELD	
	are remain and polar data	1 337
coln, J.V.	Use of electron and proton beams for production of very low frequency and	4 684
rlin, N.+	nyaromagnetic summissions Fine structure of Pc 1 pulsations, 1, Experimental evidence (L) Geomagnetic and solar data	4 763 4 780
meoln, J.V. meoln, J.V.	Geomagnetic and solar data	7 1243 7 1244
mooln, J.V.	Geomagnetic and solar data Geomagnetic and solar data	10 1739 13 2375
coln, J.V.	Geomagnetic and solar data Wave polarizations of geomagnetic pulsations observed in high latitudes on the	16 2959
rk, D. erron, R.L.	earth's surface Magnetic field of a horizontal current above a conducting earth Satellite studies of magnetospheric substorms on August 15, 1968, 1, State of the	16 3040 16 3044
Spherron, R.L.+	magnetosphere Satellite studies of magnetospheric substorms on August 15, 1968, 4, Ogo 5 magnetic	16 3068
in A.+	field observations Fine structure of Pc 1 pulsations, 2, Theoretical interpretation (L) Synoptic survey for the neutral line in the magnetotail during the substorm	16 3176
rrett, H.B.	expansion phase	19 3782 19 3799 19 3806
gège, K.+ nzerotti, L.J.+	ULF magnetic fluctuations in the plasma sheet as recorded interaction between high-frequency turbulence and magnetospheric micropulsations ULF geomagnetic power near L = 4, 1, Quiet day power spectra at conjugate points during December solstice	19 3816 19 3952
rshberg, J.+	Geomagnetic activity at sector boundaries Occurrence of IPDP events accompanied by cosmic noise absorption in the course of	19 3981
kunishi, H.	proton aurora substorms (L)	19 4005
mcoln, J.V. mazerotti, L.J.+	INF geomagnetic power near $L = 4$, 2, lemporar variation of	22 4600
offman, R.A.	Particle and field observations from Explorer 45 dataset	22 4771
Bacock, R.R.+	storm period Periodically structured Pc 1 micropulsations during the recovery phase of intense	25 5524 25 5585
Mane, R.P.	magnetic storms Global evolution of the DS component during geomagnetic storms Sudden commencement and sudden impulse absorption events at high latitudes	25 5698 28 6832
rown, R.R. wincoln, J.V. orthur, C.W.+	Geomagnetic and solar data Micropulsations in the morning sector 1, Ground observations of 10- to 45-second waves, Tungsten, Northwest Territories, Canada	34 8180
RAPPED PARTICLES		1 37
illiams, D.J.+	Strong pitch angle diffusion and magnetospheric solar protons Drift shell splitting by internal geomagnetic multipoles Drift shell splitting by internal geomagnetic multipoles	1 133 4 588
pederer, J.G.+ orfill, G.	Drift shell splitting by internal gomestic particle motion in the magnetosphere Nonadiabatic particle motion in the magnetosphere	4 597
rewick, A.+	Low-energy solar protons in the posteric fields and energetic trapped and	4 630
ttenhaek-Nielsen H	precipitating electrons precipitating electrons conjugate points	4 659 7 1058
fizera, P.F.+	User nitch angle distributions throughout the magnetosphere as established	7 1064 13 2142
yons, L.R.+ icarf, F.L.+	Observations of a current-driven plasma instability at the outer zone-plasma sheet	13 2150
	boundary	8

```
Existence of geomagnetically trapped electrons at altitudes below the inner radiation
Hayakawa, S.+
                                  belt (L)
                                Calculations of neutron flux spectra induced in the earth's atmosphere by galactic
Armstrong, T.W.+
                                cosmic rays
Jupiter's radiation belts and the sweeping effect of its satellites
                                Satellite studies of magnetospheric substorms on August 15, 1968, 5, Energetic
Kivelson, M.G.+
                                  electrons, spatial boundaries, and wave-particle interactions at Ogo 5
                                Satellite studies of magnetospheric substorms on August 15, 1968, 6, 0go 5 energetic electron observations--Pitch angle distributions in the nighttime
West, H.I., Jr.+
                                   magnetosphere
                                Satellite studies of magnetospheric substorms on August 15, 1968, 7, Ogo 5
Buck, R.M.+
                                  energetic proton observations -- Spatial boundaries
                                Dynamic variations in intensity and energy spectra of electrons in the inner
Imhof, W.L.+
                                   radiation belt
                                ULF geomagnetic power near L = 4, 2, Temporal variation of the radial diffusion coefficient for relativistic electrons
Lanzerotti, L.J.+
Claflin, E.S.+
Fritz, T.A.+
Cahill, L.J., Jr.
Smith, P.H.+
Konradi, A.+
                                Source of inner belt protons
Initial observations of geomagnetically trapped alpha particles at the equator
                                Magnetic storm inflation in the evening sector
                                Ring current particle distributions during the magnetic storms of December 16-18, 1971
                                Cherry spectra and pitch angle distributions of storm-time and subscinner in-io, 1971 Cherry spectra and pitch angle distributions of storm-time and subscript in-ioted protons Observations of proton spectra (1.0 \leq E_p \leq 300 kev) and fluxes at the plasmapause Particle and field observations from Explorer 45 during the December 1971 magnetic
Williams, D.J.+
Hoffman, R.A.
                                   storm period
                                Enhancement of 0.24- to 0.96-Mev trapped protons during the May 25, 1967, magnetic
Rothwell, P.L.+
                                  storm
Blake, J.B.+
                                Geomagnetically trapped alpha particles, 2, Inner zone Experimental test to determine the origin of geomagnetically trapped radiation (L)
Blake, J.B.
Abdu, M.A.+
                                Azimuthal drift and precipitation of electrons into the South Atlantic geomagnetic
                                  anomaly during an sc magnetic storm (L)
                                Diffusion of ring current particles by low-frequency long-wavelength electrostatic
Maggs, J.E.
                                  oscillations
Lyons, L.R.
                                Pitch angle diffusion in the radiation belts (L)
Krimigis, S.M.+
                                Measurements of geomagnetically trapped alpha particles, 1968-1970, 1, Quiet time
                                  distributions
Rassbach, M.E.
Davidson, G.T.
                                Upward Birkeland currents (L)
                                Enhancement of artificial electron belts through interactions of electrons with
                                ion cyclotron waves (L)
Measurements of the atmospheric neutron leakage rate
Lockwood, J.A.+
Bogott, F.H.+
Bogott, F.H.+
                                ATS-5 observations of energetic proton injection
                                Nightside energetic particle decreases at the synchronous orbit
Effect of magnetic field gradient on motion of ions resonating with ion cyclotron
Cladis, J.B.
Etcheto, J.+
Lucas, C.+
                                Self-consistent theory of magnetospheric ELF hiss
                                Cyclotron resonance wave amplification in the magnetosphere and energetic particle
                                   stability
                               Observations of storm-associated low-energy protons, alpha particles, and Z \ge 3 nuclei within the magnetosphere on March 8, 1970 (L) Auroral electrojets and evening sector electron dropouts at synchronous orbit (L)
Verzariu. P.
Erickson, K.N.+
Tuohy, I.R.+
                                Observation of electrons at mid-latitude during a magnetic storm (L)
WAVE PROPAGATION
Brinca, A.L.
                                Whistler modulational instability
Incoherent Cerenkov radiation in the magnetosphere and the ground observations of
Rao, M.+
                                  VLF hiss
Fredricks, R.W.+
                                Recent studies of magnetospheric electric field emissions above the electron
                                   gyrofrequency
                                High-frequency electrostatic waves in the magnetosphere Plasmaspheric hiss
Young, T.S.T.+
Thorne, R.M.+
Fredricks, R.W.+
Scarf, F.L.+
                                Ion cyclotron waves observed in the polar cusp
Satellite studies of magnetospheric stubstorms on August 15, 1968, 8, Ogo 5 plasma wave
                                  observations
                                Fine structure of Pc 1 pulsations, 2, Theoretical interpretation ELF observations during the December 1971 storm
Roux, A.+
Parady, B.+
Burtis, W.J.
                                Electron concentrations calculated from the lower hybrid resonance noise band
                                  observed by Ogo 3
                                Interaction between whistlers and quasi-periodic VLF emissions Electromagnetic radiation trapped in the magnetosphere above the plasma frequency
Gurnett, D.A.+
WHISTLERS
Brinca, A.L.
Rao, M.+
                                Whistler modulational instability
                                Incoherent Cerenkov radiation in the magnetosphere and the ground observations of
                                  VLF hiss
Park, C.G.
                                Whistler observations of the depletion of the plasmasphere during a magnetospheric
                                  substorm
Potemra, T.A.+
Thorne, R.M.+
Scarf, F.L.+
                                VLF propagation disturbances and electron precipitation at mid-latitudes
                                Plasmaspheric hiss
                                Association of magnetospheric whistler dispersion characteristics with changes in
                                  local plasma density
                               Additional results from an Ogo 6 experiment concerning ionospheric electric and electromagnetic fields in the range 20 Hz to 540 kHz

Theory and computer simulation of whistler turbulence and velocity space diffusion
Laaspere, T.+
Ossakow, S.L.+
                                  in the magnetospheric plasma
Carpenter, D.L.+
                                Satellite studies of magnetospheric substorms on August 15, 1968, 3, Some features
                                  of magnetospheric convection
Hagège, K.+
                                Interaction between high-frequency turbulence and magnetospheric micropulsations
```

8926

ekow, S.L.+	Simulation of gyroresonant electron-whistler interactions in the outer radiation belts (L)	19 3970
iwell, R.A.+ rson, R.R.+	Whistler-induced amplitude perturbation in VLF propagation Plasma wave observations near the plasmapause with the S ³ -A satellite	22 4679 22 4756
rman, S.+	Magnetospheric implications of the nonlinear whistler instability obtained in a	
is, W.J.	computer experiment Electron concentrations calculated from the lower hybrid resonance noise band	22 4792
r. F.S.+	observed by Ogo 3 Balloon and VLF whistler measurements of electric fields, equatorial electron	25 5515
;:F, F.S.+	density, and precipitating particles during a barium cloud release in the	
10.	magnetosphere Interaction between whistlers and quasi-periodic VLF emissions	25 5736 31 7347
iwell, R.A.+	Feedback model of cyclotron interaction between whistler-mode waves and energetic	31 7357
c:rman, S.+	electrons in the magnetosphere Computer simulation of cold plasma effects on the whistler instability for	
s s, C.+	geostationary orbit plasma parameters Cyclotron resonance wave amplification in the magnetosphere and energetic	31 7372
	particle stability	34 8338 34 8387
rin, R.	Nonlinear amplifier device of geophysical size (L)	
RUMENTS AND TECHNIQU	JES	
ereja, R.L.	Use of electron and proton beams for production of very low frequency and hydromagnetic	4 684
sen, W.C.+	emmissions Ion-impact-produced secondary electron emission and its effect on space	
ed, R.J.L.	instrumentation Properties of the satellite photoelectron sheath derived from photoemission	7 1145
	laboratory measurements	16 2885 22,4711
anecker, G.W.+	S ³ -A spacecraft and experiment description Double floating probe measurements on S ³ -A	22 4745
~d, R.J.L.+	Evaluation of experimental errors in electromagnetic wave measurements aboard satellites	25 5507
«.ce, W.A.+	NASA/Max Planck Institute barium ion cloud project	25 \$726
.~ son, D.+	Preliminary analysis of NASA optical data obtained in barium ion cloud experiment of September 21, 1971	25 5769
me, J.B.	Experimental test to determine the origin of geomagnetically trapped radiation (L) Nonlinear amplifier device of geophysical size (L)	25 5822 34 8387
Erin, R.	Nonlinear amplifier device of geophysical size (2)	
BRAL OR MISCELLANEOUS		
oln, J.V.	Geomagnetic and solar data Geomagnetic and solar data	1 337 4 780
oln, J.V.	Geomagnetic and solar data	7 1243 7 1244
coln, J.V.	Geomagnetic and solar data Inverse theorem about the magnetic field line velocity	10 1702
on, D.P.	Geomagnetic and solar data	10 1739 13 2375
oln, J.V.	Geomagnetic and solar data Millisecond time scale atmospheric light pulses associated with solar and	16 3033
swoln, J.V.	magnetospheric activity	19 4005
pherd, G.G.+	Predawn enhancement of 6300-A emission observed near the plasmapause from the	22 4689
race, W.A.+	Isis-2 spacecraft NASA/Max Planck Institute barium ion cloud project	25 5726
is, T.N.+	NASA/Max Planck institute Darium foir color property of the NASA/MPE barium release at Geophysical disturbance environment during the NASA/MPE barium release at 5 Rg on September 21, 1971	25 5732
ring, E.R.+	Yield and ion distribution for the barium cloud at 31,000 kilometers,	25 5745
(1, F.	September 21, 1971 Expansion of an ion cloud in the earth's magnetosphere	25 5785 28 6798
ter, D.+	Plasma oscillations at 2-3 millinertz at 0.0 carth radia (4)	28 6832
coln, J.V. perman, S.+	Computer simulation of cold plasma effects on the whistler instability for	31 7372
	geostationary orbit plasma parameters Particle acceleration by an electrostatic wave with spatially increasing	31 7531
momberg, H.W.+	phase velocity Energy spectrum and flux of 3- to 20-Mev neutrons and 1- to 10-Mev gamma rays	
mpar, D.M.+	in the atmosphere	34 7959
ch, F.J.+	Plasma sheet at lunar distance: Characteristics and Incompany	34 8097 34 8167
wlmer, F.H.+	lunar surface Excitation of ion resonances by the Isis 2 HF transmitter Excitation of ion resonances of conjugate echoes on topside sounder ionograms Lunar effect in the occurrence of conjugate echoes on topside sounder ionograms	34 8251
arma, R.P.+ ndrin, R.	Lunar effect in the occurrence of conjugate the CL Nonlinear amplifier device of geophysical size (L)	34 8387
, , , , , , , , , , , , , , , , , , , ,		
	PARTICLES AND FIELDS IN THE IONOSPHERE	
: RGLOW	PARTICLES AND TELEBOO EN COMMENTAL PARTICLES AND TE	
	Observations of the He II 304-A Radiation in the night sky	1 71 1 80
rresce, F.+	Observations of the He II 304-A Radiation in the hight of the upper geocorona Interpretation of Ogo 5 Lyman alpha measurements in the upper geocorona Far ultraviolet spectra and altitude profiles of the dawn airglow for ultraviolet spectra and altitude profiles at Kauai	1 258
ottman, G.J.+	Measurements of NO densities during surrise at Kauai Measurements of NO densities during surrise at Kauai Measurements of NO densities during surrise at Kauai	4 746 7 1107
emar, S.+	Observations of the hellum 11 304-7 and 10 1) 5577-angstrom radiation	7 1153 7 1174
uvs, P.B.+ unsley, B.A.+	Twilight airglow, 1, Photoelectrons and (0 1) son an analysis of the Excitation of oxygen permitted line emissions in the tropical nightglow Excitation of oxygen permitted line emissions in the tropical nightglow	10 1654
iner, E.+	Excitation of oxygen permitted line emissions in the troplets and a Night airglow zenith intensity variations at El Leoncito Observatory, Argentina Photodissociation continuums of N ₂ and O ₂	10 1663 13 2010
ook, G.R.+ eldman, P.D.	Daytime ion chemistry of N2:	13 2315 16 2812
hristensen, A.B.+	Conjugate photoelectron excitation of the Jupiter dayglow	
Aivero, J.J.+		8921

Tropical UV arcs: Comparison of brightness with f_0F_2 (L) Fluorescence excitation and photoelectron spectar of CO₂ induced by vacuum ultraviolet radiation between 185 and 716 angstroms Meier, R.R.+ Samson, J.A.R.+ Satellite observations of strong Balmer alpha atmospheric emissions around the Lavasseur, A.C.+ magnetic equator Ultraviolet observations of equatorial dayglow above the $\it F_{\rm 2}$ peak Predawn enhancement of 6300-A emission observed near the plasmapause from the Boksenberg, A.+ Shepherd, G.G.+ Isis-2 spacecraft Airglow hydroxyl doublet ratio temperatures Excitation of the CO fourth positive system by the dissociative recombination Harrison, A.W.+ Gutcheck, R.A.+ of ${\rm CO_2}^+$ ions Atlas of low-latitude 6300-A (O I) night airglow from Ogo 4 observations Distribution of atomic oxygen in the upper atmosphere deduced from Ogo 6 Reed, E.I.+ Donahue, T.M.+ airglow observations Atomic oxygen densities in the lower thermosphere as derived from in situ 5577-A night airglow and mass spectrometer measurements
Polarization of the 584- and 304- angstrom emissions of helium in the geocorona and Offermann, D.+ Kumar, S.+ interplanetary medium Observation and interpretation of O_2 1.27- μ emission enhancements in aurora Production of $O(^2S)$ from photodissociation of O^2 Fluorescence of CO_2 near 4.3 microns: Application to daytime limb radiance Gattinger, R.L.+ Lawrence, G.M.+ James, T.C.+ calculations Ground observations of resolved hydroxyl ($\Delta v = 2$) airglow Baker, D.J.+ AURORAL ZONE MAGNETIC EFFECTS Hones, E.W., Jr.+ Substorm variations of the magnetotail plasma sheet from $X_{\rm Sm}^{z-6}$ R_E to $X_{\rm Sm}^{z-60}$ R_E Cross-correlation analysis of the AE index and the interplanetary magnetic field Meng, C .- I .+ $B_{\rm g}$ component Convection electric fields and polar thermospheric winds (D) Effects of interplanetary magnetic sector structure on auroral zone and polar Wilson, C.R. Burch, J.L. cap magnetic activity Relationship of southward-drifting auroral arcs to the magnetospheric electric Subbarao, S.+ field and substorm activity
Study of ionospheric absorption in conjugate regions produced by storm sudden commencements and sudden impulses in the geomagnetic field
Polar cap magnetic variations and their relationship with the interplanetary Brown, R.R. Svalgaard, L. magnetic sector structure Additional results from an Ogo 6 experiment concerning ionospheric electric and electromagnetic fields in the range 20 Hz to 540 kHz Arnoldy, R.L.+ Laaspere, T.+ Inoue, Y. Wave polarizations of geomagnetic pulsations observed in high latitudes on the earth's surface Satellite studies of magnetospheric substorms on August 15, 1968, 1, State McPherron, R.L. of the magnetosphere Thermospheric density variations associated with auroral electrojet activity Minkoff, J Analysis and interpretation of aspect-dependent ionospheric radar scatter Rostoker, G.+ Response of the polar electrojets in the evening sector to polar magnetic substorms Current flow in auroral loops and surges inferred from ground-based magnetic Kisabeth, J.L.+ observations Electric field observations by incoherent scatter radar in the auroral zone Banks, P.M.+ Armstrong, J.C.+ Triaxial magnetic measurements of field-aligned currents at 800 kilometers in the auroral region: Initial results (L) Quiet auroral arcs and electrodynamic coupling between the ionosphere and Sato, T.+ the magnetosphere, 1 Holzer, T.E.+ Quiet auroral arcs and electrodynamic coupling between the ionosphere and the magnetosphere, 2 Oguti. T. Hydrogen emission and electron aurora at the onset of the auroral breakup (L) Occasions of SAR arc observations at the Battelle Observatory near Hoch, R.J.+ Richland, Washington, (L) Erickson, K.N.+ Auroral electrojets and evening sector electron dropouts at synchronous orbit (L) Minkoff, J. Fundamental limitations on aspect-sensitive ionospheric radar scattering measurements (L) AURORAS Rao, M.+ Incoherent Cerenkov radiation in the magnetosphere and the ground observations of VLF hiss Bates, H.F.+ Aurora and the poleward edge of the main ionospheric trough Stenback-Nielsen, H.C.+ Differences in auroral intensity at conjugate points Subbarao, S.+ Relationship of southward-drifting auroral arcs to the magnetospheric electric field and substorm activity Kleckner, E.W.+ Simultaneous occurrences of hydrogen arcs and mid-latitude stable auroral red arcs Feldstein, Y.I. Auroral oval (L)
Pitch angle diffusion of low-energy auroral electrons Whalen, B.A.+ Berko, F.W. Distributions and characteristics of high-latitude field-aligned electron precipitation WHF doppler spectra of radar echoes associated with a visual auroral form:
Observations and implications
On the relationship between the growth and expansion phases of substorms and Balsley, B.B.+ Mozer, F.S. magnetospheric convection (L) Reasoner, D.L.+ Henrist, M. Twin payload observations of incident and backscattered auroral electrons Figure 1 payload observations of including and backscartered autoral electrons Spatial separation of 3914 and 3160-A emissions of nitrogen in an aurora (L) Vibrational population of the $A^3\Sigma_u^+$ and $B^3\Pi_g$ states of N_2 in normal auroras (R) Vibrational population of the $A^3\Sigma_u^+$ and $B^3\Pi_g$ states of N_2 in normal auroras (R) Shemansky, D.E.+ Cartwright, D.C.+

H. Semiempir:	ical model of large-scale magneto-		
X - 1	$R_{ m E}$ to $X_{ m SM}^{m}$ \sim 60 $R_{ m E}$ ical model of large-scale magnetospheric electric fields	1	171
w r Substorm V	variations of the magnetotail plasma sheet from	1	109
TUDE IONOSPHERIC CURRENTS			
POTATIZA Vector mea	ution currents (L) surements of F region ion transport at Arecibo		
G. Proposed e	experiment to determine if IIII	31 34	
J.P.+ Catalog of	ionospheric F legion 11108	31	7431
visual a	urrora and a state of colored in the ionosphere	31	7417
W.+ Direct com	parison between Satellie Control	31	
release	the intermlanetary magnetic field (L)	28	
magnetos	phere, i, middle and substitute ionospheric barium	28	6634
M.+ Electric f	ield observations by inconerent statter radar in the ionosphere and	28	6623
field di	rection (K)		4003 6607
field di	rection (D)		
N.C.+ Example of	anticorrelation of autoral particular to interplanetary magnetic		4001
and elec	tromagnetic fields in the range to magnetospheric substorms	19	3828 3976
magnetos	phere		2926
K.+ Self-consi	stent calculation of the motion of a sneet of lons in the	16	2852
.A.+ Split Lang	muir probe measurements of current density and electric firsts	13	2201
F.+ Correspond	ence of main trough ion temperatures with norizontal dilit	10	1723
magnatas	pheric convection (L)	10	1719
field an	d substorm activity		
.R. Convection	electric fields and polar thermospheric winds (D) electric fields and polar thermospheric winds (D) ip of southward-drifting aurbral arcs to the magnetospheric electric	7	1100
precipit	ating electrons	4	757 778
S.+ Relations	between ionospheric electric fields and energetic trapped and	4	630
FIELDS	cal model of large-scale magnetospheric electric fields	1	171
			8399
, R.L.+ Observation	and interpretation of O ₂ 1.2/-µ emission emmancements in address		8305 8391
Washingto	on (L)	34	7558 8193
	tion currents (L)		
G. Hydrogen en	experiment to determine if field-aligned currents close by		7549
tr . Culentown of	Facts in suroral spectra		7515 7543
observati	ons	31	7441 7490
notontial	analyzer data		7431
magnetosp .P.+ Catalog of	where, 2 ionospheric F region irregularity behavior based on Ogo 6 retarding		
magnetosp E.+. Quiet auror	al arcs and electrodynamic coupling between the ionosphere and the		7330
Quiet auror	al arcs and electrodynamic coupling between the ionosphere and the	31	7314
.+ Direct comp	arison between satellite electric field measurements and the visual	31	7306
F.+ Equatorward Isis I	shift of the cleft during magnetospheric substorms as observed by	51	7286
auroral n		8	6595
precipita	ting electrons by Isis I	8	6579
Rocket obser	ryations of electron precipitation in a westward-traveling surge 2 s observations of auroras from the South Pole station and of	5	5553
high lati	tudes		5537
.L.+ Doppler spec	ctra of diffuse radar auroras (L)		4797
of proton	aurora substorms (L)		3981 3987
	of IPDP events accompanied by cosmic noise absorption in the course		3976
Analysis and	interpretation of aspect-dependent ionospheric radar scatter	9 :	3865
F-layer and	6300-A measurements in the day sector of the auroral oval	9 3	3848 3857
			3020 3027
+ Observations	of the auroral oval and a westward traveling surge from the		
	catter observations of the innochare over Chatenika Alaska	6 3	2992
Incoherent s			

Perkins, F. Cloutier, P.A.+ Burch, J.L.	Spread F and ionospheric currents Measurement of auroral Birkeland currents and energetic particle fluxes Effects of interplanetary magnetic sector structure on auroral zone and
Fairfield, D.H.	polar cap magnetic activity Magnetic field signatures of substorms on high-latitude field lines in the
Balsley, B.B.+	nighttime magnetosphere VHF Doppler spectra of radar echoes associated with a visual auroral form:
Svalgaard, L.	Observations and implications Polar cap magnetic variations and their relationship with the interplanetary
Campbell, W.H.+	magnetic sector structure Correspondence of solar field sector direction and polar cap geomagnetic
Arnoldy, R.L.+ Bering, E.A.+	field changes for 1965 Auroral electrons of energy less than 1 kev observed at rocket altitudes Split Langmuir probe measurements of current density and electric fields
Coroniti, F.V.+ Lanzerotti, L.J.+	in an aurora Can the ionosphere regulate magnetospheric convection? ULF geomagnetic power near $L=4$, 1, Quiet day power spectra at conjugate
D'Angelo, N. Rostoker, G.+	points during December solstice Type III spectra of the radar aurora (L) Response of the polar electrojets in the evening sector to polar magnetic substorms
Kisabeth, J.L.+	Current flow in auroral loops and surges inferred from ground-based magnetic observations
Banks, P.M.+	Electric field observations by incoherent scatter radar in the auroral zone
Armstrong, J.C.+	Triaxial magnetic measurements of field-aligned currents at 800 kilometers in the auroral region: Initial results (L)
Sato, T.+	Quiet auroral arcs and electrodynamic coupling between the ionosphere and the magnetosphere, 1
Holzer, T.E.+	Quiet auroral arcs and electrodynamic coupling between the ionosphere and the magnetosphere, 2
Atkinson, G.	Proposed experiment to determine if field-aligned currents close by polarization currents (L)
Rassbach, M.E.	Upward Birkeland currents (L)
Greenwald, R.A.+	Auroral currents, irregularities, and luminosity Generation of infrasonic waves by auroral electrojets
Swift, D.W. Erickson, K.N.+	Auroral electrojets and evening sector electron dropouts at synchronous orbit (L)
INTERACTIONS BETWEEN WAV	ES AND PARTICLES
Williams, D.J.+	Strong pitch angle diffusion and magnetospheric solar protons
Farley, D.T.+ Sudan, R.N.+ Douden P. I	Instabilities in the equatorial electrojet Generation of small-scale irregularities in the equatorial electrojet Use of electron and proton beams for production of very low frequency
Dowden, R.L. Weinstock, J.	and hydromagnetic emissions Indirect method for measuring equatorial electrojet currents and its
Pradhan, S.M.+	relation to nonlinear saturation of type I instabilities (L) On the vertical movement of sporadic E (L)
Whalen, B.A.+	Pitch angle diffusion of low-energy auroral electrons
Dias, L.+	Observation of electron cyclotron lines enhanced by HF radio waves (L)
Jones, T.W.+ Kelley, M.C.+	Plasma waves artificially induced in the ionosphere Electric field and plasma density oscillations due to the high-frequency
	Hall current two-stream instability in the auroral E region
Cohen, R. Galejs, J.	Phase velocities of irregularities in the equatorial electrojet Arbitrary propagation of HM waves along the F region
James, H.G.	whistler-mode hiss at low and medium frequencies in the dayside-cusp ionosphere
Longanecker, G.W.+	S ³ -A spacecraft and experiment description
Ecklund, W.L.+ Burtis, W.J.	Doppler spectra of diffuse radar auroras (L) Electron concentrations calculated from the lower hybrid resonance noise
Rufenach, C.L.	band observed by Ogo 3 Radio scintillation on stellar signals during artificial ionospheric
Wright, J.W.	modification Kinesonde observations of ionosphere modification by intense electromagnetic
Willis, J.W.+	fields from Platteville, Colorado Radio frequency heating effects on electron density in the lower E region
Bornatici, M.+	High-latitude proton precipitation and light ion density profiles during the magnetic storm initial phase
Ho, D.	Enhanced scattering and decay of electromagnetic waves in the ionosphere Interaction between whistlers and quasi-periodic VLF emissions
Helliwell, R.A.+	Feedback model of cyclotron interaction between whistler-mode waves and energetic electrons in the magnetosphere
Lloyd, K.H.+	Numerical modeling of the drift and deformation of ionospheric plasma clouds and of their interaction with other layers of the ionosphere
Aarons, J.	Descriptive model of F layer high-latitude irregularities as shown by scintillation observations
Bloomberg, H.W.+	Particle acceleration by an electrostatic wave with spatially increasing phase velocity
Davidson, G.T.	Enhancement of artificial electron belts through interactions of electrons with ion cyclotron waves (L)
Cladis, J.B.	Effect of magnetic field gradient on motion of ions resonating with ion cyclotron waves
Etcheto, J.+ Palmer, F.H.+	Self-consistent theory of magnetospheric ELF hiss
Mathews, J.D.+ Coyne, T.N.R.+	Excitation of ion resonances by the Isis 2 HF transmitter Evidence for distributed scattering in D-region partial-reflection processes
Holway, L.H., Jr.+	differential-absorption partial-reflection experiment
8930	Heating of the lower ionosphere by powerful radio waves (L)

EDENSITIES AND TEMPERATURES

DENSITIES AND TEMP	Comparison of T_o and T_d from Ogo 6 and from various incoherent scatter		
	radars	1	197 206
m.s, F.	Analysis of the pulsed wave interaction experiment Spread F and ionospheric currents	1	218
, R.G.+	Is there enough solar extreme ultraviolet radiation to maintain the	1	249
mr, H.A., Jr.	global mean thermospheric temperature? Parametric description of thermospheric ion composition results (L)	1	315
/s, H.F.+	Aurora and the poleward edge of the main ionospheric trough Metallic ions in the equatorial ionosphere	4	648 734
n, A.C.+	Ogo 6 measurements of supercooled plasma in the equatorial exosphere	4	751
an, D.B., Jr.+	Sensitivity study of the partial reflection experiment (L)	4 7	774 1167
n, W.B.+	Large N_1 gradients below the equatorial F peak Distribution of NO_2^+ in the lower ionosphere (L)	7	1229
man, S.M.+	On the vertical movement of sporadic E (L) Observations of noise bands associated with the upper hybrid resonance by	7	1232
per, S.R.+	the Imp 6 radio astronomy experiment		1673
er, A.E.+	Magnetic control of the near equatorial neutral thermosphere Correspondence of main trough ion temperatures with horizontal drift speed (L)		1688 1723
, H.F.+	Daytime ion chemistry of No ⁺		2010
1 1g, E.A.+	Split Langmuir probe measurements of current density and electric fields in an	13	2201
« ka, A.+	aurora Ionospheric structure near the dayside boundary of closed field lines		2311
s, J.V.	Seasonal and sunspot cycle variations of F region electron temperatures and	13	2344
an, P.D.+	protonospheric heat fluxes (L) Errors in ion and electron temperature measurements due to grid plane		
	notential nonuniformities in retarding potential analyzers		2907 2992
T.M.	Incoherent scatter observations of the ionosphere over Chatanika, Alaska Ion heating in thermal plasma flows (L)	16	3186
s, P.M. Lira, S.+	Fountarial sirglow and the ionospheric geomagnetic anomaly		4630 4641
enberg, A.+	Ultraviolet observations of equatorial dayglow above the F_2 peak Helium in the topside Venus ionosphere	22	4669
eman, J.R. on, R.F.+	Effect of an isotropic nonequilibrium plasma on electron temperature measurements		4702 4745
ard, N.C.+	Double floating probe measurements on \$3-A Electron concentrations calculated from the lower hybrid resonance noise band		
is, W.J.	-1 1 i One 7	25 25	5515 5597
ey, G.J.+	observed by OgO 3 Effects of interhemisphere transport on plasma temperatures at low latitudes Incompatibility of solar EUV fluxes and incoherent scatter measurements at		
* tz, W.E.+	Arecibo		5640
an, D.R.+	Ionospheric slab thickness: Its relation to temperature and dynamics (L)		5837 6151
hidi, E.+	Vibrational temperature of N_2 in the $\it E$ and $\it F$ regions High-latitude proton precipitation and light ion density profiles during		
. h, J.L.	the magnetic storm initial phase		6569 6701
ad, S.S.+	Electron cooling by molecular oxygen Thermalization and transport of photoelectrons: Comparison of theoretical		
-rone, R.J.+		28	6709
son, R.F.	approaches Simultaneous in situ electron temperature comparison of Alouette 2 probe and plasma resonance data		6755
,, J.F., Jr.	- * C Amonibo mighttime & region observations (L)	28	6811
iure, J.P.+	Catalog of ionospheric F region irregularity behavior based on oge of the catalog of ionospheric F region irregularity behavior based on oge of the catalog of ionospheric F region irregularity behavior based on oge of the catalog of ionospheric F region irregularity behavior based on oge of the catalog of ionospheric F region irregularity behavior based on oge of the catalog of the catalog of ionospheric F region irregularity behavior based on oge of the catalog of t	31	7431
on, M.J.+	potential analyzer data Incoherent scatter radar observations of the auroral zone ionosphere during the	31	7451
	total solar eclipse of July 10, 19/2	31	
e, J.F., Jr.+ szczewicz, E.P.	Low-latitude nighttime E region conductivities First measurements of electron temperature in the D region with a symmetric	31	7567
32C26W1C2, 2.1.	1		7572
gory, J.B.+	Sensitivity study of the partial reflection experiment Investigation into the effects of limited height resolution in the	34	8276
me, T.N.R.+	differential-absorption partial-reflection experiment		02.0
SPHERIC DISTURBA	MCES		
HUSPHERIC DISTURBA		1	218
rkins, F.	Spread F and ionospheric currents Instabilities in the equatorial electrojet	1	
cley, D.T.+ dan, R.N.+	ati-m of cmoll-goale irregularities in the oquator	1	320
rta, R.N.	Solar eclipse effect on sporadic E longstrip, the ionosphere, 1	4	697
rkins, F.W.+ busky, N.J.+	Deformation and striation of plasma critical model	4	711
	simulation of a nonlinear two-unmentaledectrojet currents and its relation	4	772
unstock, J.	to nonlinear saturation of type a magnification at mid-latitudes	10	
mtemra, T.A.+	to nonlinear saturation of type I instabilities by VLF propagation disturbances and electron precipitation at mid-latitudes VLF propagation of noise bands associated with the upper hybrid resonance by Observations of noise bands associated with the upper hybrid resonance by	10	1673
sier, S.R.+	the Imp 6 radio astronomy exposition to the the radio waves (L)	10	
:as, L.+	Observation of electron cyclotron raciallations due to the high-frequency	13	2214
11ey, M.C.+		13	
to, T.	Hall current two-stream instability in the auroral B legion Unified theory of type I and II irregularities in the equatorial electrojet Acoustic-gravity modes and large-scale traveling ionospheric disturbances of a Acoustic-gravity modes are atmosphere	13	2278
ancis, S.H.	Acoustic-gravity motes the 1-1-3	13	
inson, W.B.+	On the cause of equatorial spread f the idnosphere over Chatanika, Alaska	16	
itt, T.M.	Incoherent scatter observations of the lonospheric irregularities associated with Some characteristics of the ionospheric irregularities associated with	16	3007
eandra, H.+	E _{BC} layers	19	3828
ark, C.G.+	E_{BQ} layers Distortions of the nightside ionosphere during magnetospheric substorms F-layer and 6300-A measurements in the day sector of the auroral oval	19	3848
malen, J.A.+	Predicted acoustic gravity wave communication	19	3995
70, A.D.	June 30, 1973 (L)		89

```
Unusual LF radio absorption events during a major meteor shower (L)
Sen, A.K.+
Greifinger, C.+
                                               Wave guide propagation of micropulsations out of the plane of the geomagnetic meridian
                                               Whistler-induced amplitude perturbation in VLF propagation
Helliwell, R.A.+
                                               Spread E caused by cross-field instability Radio scintillation on stellar signals during artificial ionospheric modification
Chen, A.A.
Rufenach, C.L.
Wright, J.W.
                                               Kinesonde observations of ionosphere modification by intense electromagnetic
                                                  fields from Platteville, Colorado
                                               Wind component exchange and the rapid vertical movement of a sporadic {\it E} layer
Chimonas, G. Willis, J.W.+
                                              Radio frequency heating effects on electron density in the lower E region HF absorption near the polar cap edge during PCA events (L) Quiet auroral arcs and electrodynamic coupling between the ionosphere and the
Zmuda, A.J.+
Sato, T.+
                                                  magnetosphere, 1
                                               Quiet auroral arcs and electrodynamic coupling between the ionosphere and the
Holzer, T.E.+
                                              magnetosphere, 2
Numerical modeling of the drift and deformation of ionospheric plasma clouds
and of their interaction with other layers of the ionosphere
Laboratory simulation of artificial plasma clouds in the ionosphere
Catalog of ionospheric F region irregularity behavior based on Ogo 6 retarding
Lloyd, K.H.+
Morse, D.L.+
McClure, J.P.+
                                              potential analyzer data Descriptive model of F layer high-latitude irregularities as shown by
Aarons, J.
                                                  scintillation observations
                                              Incoherent scatter radar observations of the auroral zone ionosphere during the total solar eclipse of July 10, 1972
Observations of relativistic electron precipitation at L=6 (L)
Baron, M.J.+
Matthews, D.L.+
                                              Hydrogen emission and electron aurora at the onset of the auroral breakup (L) Excitation of ion resonances by the Isis 2 HF transmitter Generation of infrasonic waves by auroral electrojets Lower-atmospheric gravity modes and their relation to medium-scale traveling
Oguti, T.
Palmer, F.H.+
Swift, D.W.
Francis, S.H.
                                                  ionospheric disturbances
                                              Heating of the lower ionosphere by powerful radio waves (L)
Holway, L.H., Jr.+
LOW-LATITUDE IONOSPHERIC CURRENTS
                                             Instabilities in the equatorial electrojet
Generation of small-scale irregularities in the equatorial electrojet
Farley, D.T.+
Sudan, R.N.+
                                             Deformation and striation of plasma clouds in the ionosphere, 1
Deformation and striation of plasma clouds in the ionosphere, 2,
simulation of a nonlinear two-dimensional model
Perkins, F.W.+
Zabusky, N.J.+
                                              Electric field and wind motion at the magnetic equator
Kato, S.
                                              Indirect method for measuring equatorial electrojet currents and its
Weinstock, J.
                                                  relation to nonlinear saturation of type I instabilities (L)
Mizera, P.F.+
Sastry, T.S.G.
                                              Observations of ring current protons at low altitudes
                                              Daily variation of geomagnetic field at the Indian stations under the
                                             electrojet during the period of the July 1966 proton flare
Phase velocities of irregularities in the equatorial electrojet
Unified theory of type I and II irregularities in the equatorial electrojet
Magnetic field of a horizontal current above a conducting earth
Cohen, R.
Sato, T.
Park, D.
                                             Convective amplification of type I irregularities in the equatorial electrojet Global evolution of the {\it DS} component during geomagnetic storms Nonlinear saturation of the gradient drift instability in the equatorial
Lee, K.+
Kane, R.P.
Rognlien, T.D.+
                                                 electrojet (L)
                                             Radar observations of two-dimensional turbulence in the equatorial electrojet Vector measurements of F region ion transport at Arecibo Density gradients and the Farley-Buneman instability
Balsley, B.B.+
Behnke, R.A.+
Schmidt, M.J.+
PARTICLE PRECIPITATION
Gurnett, D.A.+
Mozer, F.S.+
                                             Observed relationships between electric fields and auroral particle precipitation Relations between ionospheric electric fields and energetic trapped and
                                                 precipitating electrons
Cloutier, P.A.+
Stenbaek-Nielsen, H.C.+
                                             Measurement of auroral Birkeland currents and energetic particle fluxes
Differences in auroral intensity at conjugate points
Observations of ring current protons at low altitudes
Mizera, P.F.+
Potemra, T.A.+
Whalen, B.A.+
Berko, F.W.+
                                             VLF propagation disturbances and electron precipitation at mid-latitudes
Pitch angle diffusion of low-energy auroral electrons
Distributions and characteristics of high-latitude field-aligned electron
                                                  precipitation
Reasoner, D.L.+
                                              Twin payload observations of incident and backscattered auroral electrons
Arnoldy, R.L.+
Hruska, A.+
                                              Auroral electrons of energy less than 1 kev observed at rocket altitudes Ionospheric structure near the dayside boundary of closed field lines
                                              Existence of geomagnetically trapped electrons at altitudes below the inner
Hayakawa, S.+
                                                  radiation belt
Light, E.S.+
                                              Time dependent worldwide distribution of atmospheric neutrons and of their
                                             Time dependent worldwide distribution of atmospheric neutrons and of their products, 2, Calculation
Time dependent worldwide distribution of atmospheric neutrons and of their products, 3 Neutrons from solar protons
Electron precipitation patterns and substorm morphology
Observations of the auroral oval and a westward traveling surge from the Isis 2 satellite and the Alaskan meridian all-sky cameras
F-layer and 6500-A measurements in the day sector of the auroral oval
First results from the north polar auroral radar
Satellite observations of strong Balmer alpha atmospheric emissions around the magnetic squator
Mendell, R.B.+
Hoffman, R.A.+
Anger, C.D.+
Whalen, J.A.+
Bates, H.F.+
Levasseur, A.C.+
                                                  the magnetic equator
                                             Cosmic ray total ionization, 1970-1972
Example of anticorrelation of auroral particles and electric fields
Whistler-mode hiss at low and medium frequencies in the dayside-cusp
Anderson, H.R.
Maynard, N.C.+
James, H.G.
Chandra, S.+
```

Equatorial airglow and the ionospheric geomagnetic anomaly

ewell, R.A.+	Whistler-induced amplitude perturbation in VLF propagation Latitude and local time dependence of precipitated low-energy electrons	22 4679
, н.+	at high latitudes Rocket observations of electron precipitation in a westward-traveling	25 5537
n, R.R. π, F.S.+	surge Sudden commencement and sudden impulse absorption events at high latitudes Balloon and VLF whistler measurements of electric fields, equatorial electron	25 5553 25 5698
.,	density, and precipitating particles during a barium cloud release in the magnetosphere	25 5736
, M.A.+	Azimuthal drift and precipitation of the electrons into the South Atlantic geomagnetic anomaly during an sc magnetic storm (L)	25 5830
th, J.L.	High-latitude proton precipitation and light ion density profiles during the magnetic storm initial phase	28 6569
ingham, J.D.+	Simultaneous observations of auroras from the South Pole station and of precipitating electrons by Isis I Energy deposition of protons in molecular nitrogen and applications to proton	28 6579
er, B.C.+	auroral phenomena Role of the neutral sheet in the illumination of polar caps by solar protons (L)	28 6595 28 6773
R.+	Interaction between whistlers and quasi-periodic VLF emissions Structure of high-latitude irregular electron fluxes and acceleration of	31 7347
ka, A.	particles in the magnetotail Observations of relativistic electron precipitation at $L = 6$ (L)	31 7509 31 7539
i., T.	Hydrogen emission and electron aurora at the onset of the auroral breakup (L) Auroral electron spectra	31 7543 34 8391
L ELECTRON CONTENT		
, H.D.	Electron content measurements: Method for resolving the n-pi ambiguity (L) Analysis and interpretation of aspect-dependent ionospheric radar scatter	7 1214 19 38 65
herd, G.G.+	Predawn enhancement of 6300-A emission observed near the plasmapause from	22 4689
tz, W.E.+	Incompatibility of solar EUV fluxes and incoherent scatter measurements at Arecibo	25 5640 25 5837
man, D.R.+	Arection Ionospheric slab thickness: Its relation to temperature and dynamics (L) Descriptive model of F layer high-latitude irregularities as shown by	. 31 7441
embuch, K.M.	scintillation observations Theoretical models for electron energy relaxation in the lower ionosphere Rocket measurement of the differential energy spectrum of the	34 8345
i, T.+	photoelectrons (L)	34 8395
PROPAGATION		1 181
xca, A.L. M.+	Whistler modulational instability Incoherent Cerenkov radiation in the magnetosphere and the ground observations	1 191
an, R.N.+	of VLF hiss Generation of small-scale irregularities in the equatorial electrojet	1 240 2 393
r, E.+ son, C.R.	Line source over a nonuniform stratified earth Convection electric fields and polar thermospheric winds (D) Plasma waves artificially induced in the ionosphere	4 778 13 2166
es, T.W.+ en, R.	Phase velocities of irregularities in the equatorial counters	13 2222 13 2244
kwood, G.E.K.	Acoustic-gravity modes and large-scale claveling longering	13 2278
aspere, T.+	Additional results from an Ogo 6 experiment concernant and selectromagnetic fields in the range 20 Hz to 540 kHz	16 2926 18 3617
er, W.F.	More on field representation in the ELF range (D)	18 3627 19 3894
lejs, J.	Arbitrary propagation of HM waves along the Tegating in the dayside-cusp ionosphere	22 4578
Pifinger, C.+	Whistler-mode hiss at low and medium requested in the plane of the geomagnetic Wave guide propagation of micropulsations out of the plane of the geomagnetic meridian Convective amplification of type I irregularities in the equatorial electrojet Convective amplification of type I irregularities in the equatorial electrojet	22 4611 22 4619
.e, K.+ 'lliwell, R.A.+	Whistler-induced amplitude perturbation and activity (L)	22 4679 22 4801
'lson, C. rbin, V.L.+	Meteorological and geophysical example of the periodic phenomena	27 6199 28 6760
rnatici, M.+	Enhanced scattering and decay of the transmitter	34 8167
imer, F.H.+ thur, C.W.+	Micropulsations in the morning sector, i, stories, Canada	34 8180 34 8261
hmidt, M.J.+ yne, T.N.R.+	Density gradients and the railey-bands are resolution in the Investigation into the effects of limited height resolution in the	34 8276
rancis, S.H.	Lower-atmospheric gravity modes and their relation to medium-scale traveling	34 8289
.nkoff, J.	ionospheric disturbances Fundamental limitations on aspect-sensitive ionospheric radar scattering measurements (L)	34 8399
RAYS		
ozer, F.S.+	Relations between ionospheric electric fields and energetic trapped and	4 630
millips, J.	Conjugate asymmetries in sudden commencement absorption and the sudden	10 1563
rown, R.R.	commencement absorption of narrow microburst trains in the geomagnetic storm of	10 1727
wzer, F.S.+	August 4-6, 1872 (c) Balloon and VLF whistler measurements of electric fields, equatorial electron density, and precipitating particles during a barium cloud release in density, and precipitating particles during a barium cloud release in	25 5736
	the magnetosphere	8

Observation of electrons at mid-latitude during a magnetic storm (L)

```
INSTRUMENTS AND TECHNIQUES
                                     Comparison of T_{\mathcal{C}} and T_i from Ogo 6 and from various incoherent scatter radars Analysis of the pulsed wave interaction experiment Far ultraviolet spectra and altitude profiles of the dawn airglow
McClure, J.P.+
Coyne, T.N.R.
Rottman, G.J.+
Noteman, 0.5.*

Stenback-Nielsen, H.C.+ Differences in auroral intensity at conjugate points

Zabusky, N.J.+

Deformation and striation of plasma clouds in the ionosphere, 2, Numerical simulation of a nonlinear two-dimensional model

Newman, D.B., Jr.+

Knudsen, W.C.+

Knudsen, W.C.+
                                         instrumentation
                                      Twilight airglow, 1, Photoelectrons and [O I] 5577-angstrom radiation Auroral electrons of energy less than 1 kev observed at rocket altitudes Side band and harmonic radiation from topside sounders
         P.B.+
Arnoldy, R.L.+
Lockwood, G.E.K.
Goldan, P.D.+
                                      Perform and marmonic registron from topside sounders errors in ion and electron temperature measurements due to grid plane potential nonuniformities in retarding potential analyzers First results from the north polar auroral radar Analysis and interpretation of aspect-dependent ionospheric radar scatter Ultraviolet observations of equatorial dayglow above the F2 peak Effect of an isotropic nonequilibrium plasma on electron temperature measurements
Minkoff, J.
Boksenberg, A.
Benson, R.F.+
                                         measurements
                                      Evaluation of experimental errors in electromagnetic wave measurements aboard satellites
Grard, R.J.L.+
                                       Kinesonde observations of ionosphere modification by intense electromagnetic
Wright, J.W.
                                      fields from Platteville, Colorado
Meteorological and geophysical example of the use of the scale autocorrelation
coefficient to determine ratios of frequencies present in periodic phenomena
Probe electric field measurements near a midlatitude ionospheric barium release
Corbin, V.L.+
Schutz, S.+
Benson, R.F.
                                       Simultaneous in situ electron temperature comparison of Alouette 2 probe and
                                         plasma resonance data
Morse, D.L.+
                                       Laboratory simulation of artificial plasma clouds in the ionosphere
Szuszczewicz, E.P.
                                       First measurements of electron temperature in the D region with a symmetric
                                         double probe
Coyne, T.N.R.+
                                       Investigation into the effects of limited height resolution in the
                                       differential-absorption partial-reflection experiment
Rocket measurement of the differential energy spectrum of the photoelectrons (L)
Mukai, T.+
Minkoff, J.
                                       Fundamental limitations on aspect-sensitive ionospheric radar scattering
                                         measurements (L)
GENERAL OR MISCELLANEOUS
                                       Adiabatic gamma for two-dimensional compression of an unstable plasma (L)
Krall, N.A.+
                                      Millisecond time scale atmospheric light pulses associated with solar and
Ögelman, H.
                                         magnetospheric activity
Anderson, H.R.
                                       Cosmic ray total ionization, 1970-1972 (L)
Kliore, A.J.+
                                       S band radio occultation measurements of the atmosphere and topography of
                                         Mars with Mariner 9: Extended mission coverage of polar and intermediate
                                          latitudes
Davis, T.N.+
                                       Geophysical disturbance environment during the NASA/MPE barium release at 5 R_{\rm E}
                                         on September 21, 1971
Manring, E.R.+
                                       Yield and ion distribution for the barium cloud at 31,000 kilometers,
                                          September 21, 1971
Cicerone, R.J.+
                                       Thermalization and transport of photoelectrons: Comparison of theoretical
                                         approaches
Laframboise, J.G.+
                                       Comparison of theory with experiment for electron density distribution in
                                         the near wake of an ionospheric satellite (D)
                                      Comparison of theory with experiment for electron density distribution in the near wake of an ionospheric satellite (R)
Jew, H.
Rowe, J.F., Jr.+
Sharma, R.P.+
                                       Low-latitude nighttime E region conductivities
                                       Lunar effect in the occurrence of conjugate echoes on topside sounder
                                         ionograms
Baker, D.J.+
                                      Ground observations of resolved hydroxyl (\Delta v = 2) airglow
                                                                                           AERONOMY
ABSORPTION AND SCATTERING OF RADIATION (PARTICLES OR WAVES)
Paresce, F.+
                                       Observations of the He II 304-A radiation in the night sky
Bertaux, J.L.+
Farley, D.T.+
Rohrbaugh, J.L.+
                                       Interpretation of Ogo 5 Lyman alpha measurements in the upper geocorona
Instabilities in the equatorial electrojet
Comparison of the correlation of incoherent scatter and ionosonde measurements of
temperature with calcium plage and 2800-megahertz intensities
Sensitivity study of the partial reflection experiment (L)
Newman, D.B., Jr.+
Cunnold, D.M.+
                                       Stratospheric aerosol layer detection
Kumar, S.+
Vidal-Madjar, A.+
                                       Observations of the helium II 304-A and helium I 584-A atmospheric dayglow radiation Solar Lyman alpha changes and related hydrogen density distribution at the earth's exobase (1969-1970)
Allen, K.H.+
Cook, G.R.+
                                       Broad band solar EUV absorption in the earth's upper atmosphere (L) Photodissociation continuums of \rm N_2 and \rm O_2
Brown, R.R.
                                       Study of ionospheric absorption in conjugate regions produced by storm sudden commence-
                                      ments and sudden impulses in the geomagnetic field

Plasma waves artificially induced in the ionosphere

Twin payload observations of incident and backscattered auroral electrons

Calculations of neutron flux spectra induced in the earth's atmosphere by galactic
Reasoner, D.L.+
Armstrong, T.W.+
                                         cosmic rays
Merker, M.+
                                      Time dependent worldwide distribution of atmospheric neutrons and of their products,
```

1, Fast neutron observations

Tuohy, I.R.+

t, E.S.+	Time dependent worldwide distribution of atmospheric neutrons and of their products,	16 2741
ero, J.J.+	2, Calculation Photoelectron excitation of the Jupiter dayglow	16 2812
son, R.W.+	Photoionization excitation of the $CO_2^+(\tilde{B}^2\Sigma_u^+ + \tilde{\chi}^2\Pi_g)$ 2890-A band (L)	16 3194
on, J.A.R.+	Fluorescence excitation and photoelectron spectra of CO ₂ induced by vacuum ultraviolet radiation between 185 and 716 angstroms	19 3663
s, H.F.+	First results from the north polar auroral radar	19 3857
sseur, A.C.+	Satellite observations of strong Balmer alpha atmospheric emissions around the magnetic equator	19 3881
s, E.A.+ .	Measurements of ionospheric reflectivity from 6 to 35 kHz	19 3903
10, J.M.+	Mariner 9 ultraviolet spectrometer experiment: Afternoon terminator observations of Mars	20 4279
ht, J.W.	Kinesonde observations of ionosphere modification by intense electromagnetic fields	25 5622
g, E.L.	from Platteville, Colorado Aeronomic consequences of solar flux variations between 2000 and 1325 angstroms	25 5718
in, V.L.+	Meteorological and geophysical example of the use of the scale autocorrelation coefficient	07 6100
2.7	to determine ratios of frequencies present in periodic phenomena Electric field observations by incoherent scatter radar in the auroral zone	27 6199 28 6607
s, P.M.+	Incoherent scatter radar observations of the auroral zone ionosphere during the total	
	solar eclipse of July 10, 1972	31 7451 31 7539
hews, D.L.+	Observations of relativistic electron precipitation at $L = 6$ (L) Sensitivity study of the partial reflection experiment (D)	31 7572
ory, J.B.+ rrson, L.E.+	Spectrum of atmospheric gamma rays to 10 MeV at λ = 40°	34 7942
ME, S.+	Polarization of the 584- and 304-angstrom emissions of helium in the geocorona and	34 8065
	interplanetary medium Preliminary study of the neutral wind in the auroral E region	34 8235
like, A.+ idt, M.J.+	Density gradients and the Farley-Buneman instability	34 8261
ews, J.D.+	Evidence for distributed scattering in D-region partial-reflection processes	34 8266
ne, T.N.R.+	Investigation into the effects of limited height resolution in the differential- absorption partial-reflection experiment	34 8276
≝s, T.C.+	Fluorescence of CO ₂ near 4.3 microns: Application to daytime limb radiance calculations	34 8320
₩, M.H.+	Aumonal electron spectra	34 8391 34 8395
mi, T.+	Rocket measurement of the differential energy spectrum of the photoelectrons (L) Heating of the lower ionosphere by powerful radio waves (L)	34 8402
way, L.H., Jr.+		
TO TO PARTICLES OF		
magnn, J.G.+	Solar and geomagnetic modulation of low-energy secondary cosmic ray electrons	10 1502
mypacker, C.R.+	Measurement of geomagnetic cutoff rigidities and particle fluxes below geomagnetic	10 1515
e.trong, T.W.+	cutoff near Palestine, Texas Calculations of neutron flux spectra induced in the earth's atmosphere by galactic	16 2715
	cosmic rays Mariner 9 ultraviolet spectrometer experiment: Afternoon terminator observations of Mars	20 4279
1.10, J.M.+	Mariner 9 ultraviolet spectrometer experiment. Account to the second form of the total Incoherent scatter radar observations of the auroral zone ionosphere during the total	~1 7451
on, M.J.+	solar eclipse of July 10, 1972	31 7451
TPOSITION (ATOMIC O	R MOLECULAR)	
ier, H.A., Jr.	of the macrhanic ion commosition results (L)	1 315 1 323
LRS, W.F.J.+	Atomic hydrogen concentrations in the mesosphere and the hydroxy's omic to	1 025
ersberger, K.+	Thermospheric structure: Correlation of mass spectrometry and incoherent scatter	1 330
roud A	sounding (D) Thermospheric structure: Correlation of mass spectrometry and incoherent scatter	1 332
-aud, A.	sounding (R)	4 734
kin, A.C.+	Metallic ions in the equatorial ionosphere Measurements of NO densities during sunrise at Kauai	4 746
mone, G.C.	Stratospheric aerosol layer detection	6 920 7 1107
mair, S.+	Stratospheric aerosol layer detection Observations of the helium II 304-A and helium I 584-A atmospheric dayglow radiation Solar Lyman alpha changes and related hydrogen density distribution at the earth's	
ial-Madjar, A.+	exobase (1969-1970)	7 1115 7 1225
maig, E.L.+	recent of atomic overen on the No Vibrational Lemperature in	7 1229
Wkin, A.C.+	Distribution of NO ₂ * in the lower ionosphere (L) Density and composition of the lower thermosphere	10 1633
ie, K.	Tace of atomic ovvoen in mass spectrometer in source	10 1645 10 1663
*ke, L.R.+	Photodissociation continuims of No and O2	10 1699
thsenfeld, F.C.+	Atmospheric atomic sulfur ion reactions Atmospheric atomic sulfur ion reactions Magnetic storm characteristics of the thermosphere Magnetic storm characteristics of the property using a quadrupole mass spectrometer with a side	13 2251
yr, H.G.+ emann, H.B.+	Thermosphere composition measurement assess a transfer	13 2265
3101	energy rocusting quasi-open for the second and the	15 2619
fsy, S.C.+	On vertical mixing in the upper stratosphere and lower mesosphere Time dependent worldwide distribution of atmospheric neutrons and of their products,	16 2727
rker, M.+	1, Fast neutron observations Time dependent worldwide distribution of atmospheric neutrons and of their products,	
ght, E.S.+	Time dependent worldwide distribution of atmosphere	16 2741
endell, R.B.+	2, Calculation Time dependent worldwide distribution of atmospheric neutrons and of their products,	16 2763
	3, Neutrons from solar protons Thermospheric wind effects on the distribution of helium and argon in the earth's upper	16 2977
ber, C.A.+	atmosphere	19 3991
olland, H.+	Mate on the semianmual effect in the thermosphere (a)	21 4441
inley, H.M.+	Stratospheric NO production from past nuclear explosions Role of gas-surface interactions in the reduction of Ogo 6 neutral particle mass spectrom	22 4651
edin, A.E.+	eter data	22 4003
erman, J.R.	Helium in the topside Venus ionosphere of stratospheric methane	24 5259 24 5265
Amming, C.+		24 5273
halt, D.H.+		24 5306
ummler, R.H.+	Vertical distribution of CO in the example of the distribution of CO and CH, in the mesosphere and upper Theoretical model of vertical distributions of CO and CH, in the mesosphere and upper Theoretical model of vertical distributions of CO and CH, in the mesosphere and upper	24 5352
timazaki, T.+	stratosphere	24 5362
hitten, R.C.+	stratosphere Model of carbon compounds in the stratosphere and mesosphere	8
		0

Incompatibility of solar EUV fluxes and incoherent scatter measurements at Arecibo Satellite ultraviolet measurements of nitric oxide fluorescence with a diffusive trans-Swartz, W.E.+ Rusch, D.W. port model Diurnal and semidiurnal nitrogen density and temperature variations from thermosphere Newton, G.P.+ probe measurements Aeronomic consequences of solar flux variations between 2000 and 1325 angstroms Aeronomic consequences of solar flux variations between 2000 and 1325 angstroms Experimental test to determine the origin of geomagnetically trapped radiation (L) Effect of nuclear explosions on stratospheric nitric oxide and ozone Observations of atmospheric ozone at 110,836 GHz Rocket observation of the equatorial $O_2(^{1}\Delta_g)$ emission after sunset Vibrational temperature of N_2 in the E and F regions Distribution of atomic oxygen in the upper atmosphere deduced from Ogo 6 airglow observations. Breig, E.L Blake, J.B. Johnston, H.+ Shimabukuro, F.I.+ Han, R.Y.+ Jamshidi, E.+ Donahue, T.M.+ observations Atomic oxygen densities in the lower thermosphere as derived from in situ 5577-A night Offermann, D.+ airglow and mass spectrometer measurements
Effect of energetic oxygen atoms on neutral density models
Theory of the phase anomaly in the thermosphere Rohrbaugh, R.P.+ Mayr, H.G.+ von Zahn, U.+ Esro 4 gas analyzer results, 1, First observation of the summer argon bulge (L) McConnell, J.C. Farlow, N.H.+ Atmospheric ammonia X ray analysis of balloon-collected particles erroneously considered as October influx into the lower stratosphere (D)
X ray analysis of balloom-collected particles erroneously considered as October influx Bigg, E.K.+ into the lower stratosphere (R)
Ultraviolet (1200-1900 angstrom) spectrum of Venus
Helium and hydrogen in the lunar atmosphere Rottman, G.J.+ Hodges, R.R., Jr. Kumar, S.+ Polarization of the 584- and 304-angstrom emissions of helium in the geocorona and interplanetary medium Thermospheric density and composition as determined by a mass spectrometer with cryo Offermann, D.+ ion source Production of $O(^1S)$ from photodissociation of O_2 Direct accretion of $^3{\rm He}$ and $^3{\rm H}$ from cosmic rays Lawrence, G.M.+ Lupton, J.E. Theoretical models for electron energy relaxation in the lower ionosphere
Rocket measurement of the differential energy spectrum of the photoelectrons (L) Hagenbuch, K.M. Mukai, T.+ CONVECTION, DIFFUSION, MIXING, TURBULENCE, AND FALLOUT Is there enough solar extreme ultraviolet radiation to maintain the global mean thermo-Roble, R.G.+ spheric temperature? Wilson, C.R. Convection electric fields and polar thermospheric winds (D) Vidal-Madjar, A.+ Solar Lyman alpha changes and related hydrogen density distribution at the earth's exobase (1969-1970) Wofsy, S.C.+ Reber, C.A.+ On vertical mixing in the upper stratosphere and lower mesosphere Thermospheric wind effects on the distribution of helium and argon in the earth's upper atmosphere Shimazaki, T.+ Theoretical model of vertical distributions of CO and CH4 in the mesosphere and upper stratosphere Whitten, R.C.+ Model of carbon compounds in the stratosphere and mesosphere Reiter, R. Increased influx of stratospheric air into the lower troposphere after solar Ha and X ray flares Hewitt, R.G.+ Bowen, V.T.+ Method for calculating residence times Vertical distributions of strontium 90, cesium 137, and tritium near 45° north in the Atlantic Meriwether, J.W.+ Hodges, R.R., Jr. Neutral winds above 200 km at high latitudes Differential equation of exospheric lateral transport and its application to terrestrial Mayr, H.G.+ von Zahn, U.+ Theory of the phase anomaly in the thermosphere Esro 4 gas analyzer results, 1, First observation of the summer argon bulge (L) PRESSURE, DENSITY, AND TEMEPRATURE Interpretation of Ogo 5 Lyman alpha measurements in the upper geocorona

Is there enough solar extreme ultraviolet radiation to maintain the global mean thermo-Bertaux, J.L.+ Roble, R.G.+ spheric temperature? Rohrbaugh, J.L.+ Comparison of the correlation of incoherent scatter and ionosonde measurements of temperature with calcium plage and 2800-megahertz intensities

Atomic hydrogen concentrations in the mesosphere and the hydroxyl emissions (L) Evans, W.F.J.+ Labitzke, K.+ Global time and space changes of satellite radiances received from the stratosphere and lower mesosphere
Neutral thermosphere temperatures from density scale height measurements
Solar Lyman alpha changes and related hydrogen density distribution at the earth's Newton, G.P.+ Vidal-Madjar, A.+ exobase (1969-1970) Effect of atomic oxygen on the N_2 vibrational temperature in the lower themosphere (L) Density and composition of the lower thermosphere Breig, E.L.+ Moe, K. Hedin, A.E.+ Mayr, H.G.+ Magnetic control of the near equatorial neutral thermosphere Magnetic storm characteristics of the thermosphere
Thermospheric density variations associated with auroral electrojet activity Forbes, J.M.+ Volland, H.+ Note on the semiannual effect in the thermosphere (L)
Method of parameterization for infrared cooling between altitudes of 30 and 70 kilometers Dickinson, R.E. Harrison, A.W.+ Newton, G.P.+ Airglow hydroxyl doublet ratio temperatures Diurnal and semidiurnal nitrogen density and temperature variations from thermosphere probe measurements Prasad, S.S.+ Hodges, R.R., Jr. Electron cooling by molecular oxygen

Differential equation of exospheric lateral transport and its application to terrestrial

Theory of the phase anomaly in the thermosphere Ground observations of resolved hydroxyl ($\Delta\nu$ = 2) airglow

Mayr, H.G.+

Baker, D.J.+

hydrogen

3. WAVES, AND WINDS

3, WAVES, AND WINDS		
	Ogo 6 measurements of supercooled plasma in the equatorial exosphere	4 751
	Electric field and wind motion at the magnetic equator Convection electric fields and polar thermospheric winds (D)	4 757 4 778
	Half-yearly wave in the stratosphere (D)	9 1484
c.oon, H.+	Half-yearly wave in the stratosphere (R)	9 1486
ttermeyer, J.	Critique of multilayer analyses in application to the propagation of acoustic-gravity waves (D)	10 1733
≈, C.O.	Critique of multilayer analyses in application to the propagation of acoustic-gravity	10 1735
1, R.	waves (R) Phase velocities of irregularities in the equatorial electrojet	13 2222
H.G.+	Magnetic storm characteristics of the thermosphere	13 2251
is, S.H.	Acoustic-gravity modes and large-scale traveling ionospheric disturbances of a realistic, dissipative atmosphere	13 2278
on, W.B.+	On the cause of equatorial spread F (L)	13 2353 15 2672
	Note on the annual temperature wave in the stratosphere Thermospheric wind effects on the distribution of helium and argon in the earth's upper	
, 0	atmosphere	16 2977 21 4463
oon, H.+	Zonal harmonic standing waves Seasonal variation of auroral infrasonic wave activity (L)	22 4801
> ay, G.J.+	Effects of interhemisphere transport on plasma temperatures at low latitudes	25 5597 25 5636
omas, G.	Wind component exchange and the rapid vertical movement of a sporadic E layer Diurnal and semidiurnal nitrogen density and temperature variations from thermosphere	23 3030
non, G.P.+	probe measurements	25 5687
н.в.	Exact solution for the rotation of the atmosphere about the spheroidal earth Neutral winds above 200 km at high latitudes	27 6195 28 6643
ether, J.W.+	Differential equation of exospheric lateral transport and its application to terrestrial	71 7740
· ·	hydrogen Numerical modeling of the drift and deformation of ionospheric plasma clouds and of their	31 7340
6 i, K.H.+	interaction with other layers of the ionosphere	31 7389
H.G.+	Theory of the phase anomaly in the thermosphere Esro 4 gas analyzer results, 1, First observation of the summer argon bulge (L)	31 7480 31 7560
lahn, U.+	Generation of infrasonic waves by auroral electrojets	34 8205
ce, R.A.+	Vector measurements of F region ion transport at Arecibo	34 8222 34 8235
Гке, А.+ гла, R.P.+	Preliminary study of the neutral wind in the auroral E region Lunar effect in the occurrence of conjugate echoes on topside sounder ionograms	34 8251
osis, S.H.	Lower atmospheric gravity modes and their relation to medium-scale traveling follospheric	34 8289
	disturbances	
RUMENTS AND TECHNIQU	DES	
⇒sce, F.+	Observations of the He II 304-A radiation in the night sky	1 71 1 258
man, G.J.+	Far ultraviolet spectra and altitude profiles of the dawn airglow Comparison of the correlation of incoherent scatter and ionosonde measurements of	
baugh, J.L.+	the second with actoism place and 7800-megahertz intensities	1 281
***rsberger, K.+	Thermospheric structure: Correlation of mass spectrometry and incoherent scatter sounding (D)	1 330
⊫ud, A.	Sounding (D) Thermospheric structure: Correlation of mass spectrometry and incoherent scatter	1 332
	sounding (R) Global time and space changes of satellite radiances received from the stratosphere and	
kitzke, K.+	lower mesosphere	3 483 6 920
unold, D.M.+	Stratospheric aerosol layer detection Observations of the helium II 304-A and helium I 584-A atmospheric dayglow radiation	7 1107
ear, S.+ edsen, W.C.+		7 1145 7 1153
s, P.B.+	Inn-impact-produced sectionary sections and [O I] 5577-angstrom radiation Twilight airglow, 1, Photoelectrons and [O I] 5577-angstrom radiation Photoabsorption cross sections of H ₂ , D ₂ , N ₂ , O ₂ , Ar, Kr, and Xe at the 584-A line of	
lley, J.E.+	noutral holium	10 1627 10 1645
e, L.R.+	Loss of atomic oxygen in mass spectrometer ion sources Atmospheric atomic sulfur ion reactions	10 1699
senfeld, F.C.+	Atmospheric atomic surface measurement using a quadrupole mass spectrometer with a side Thermosphere composition measurement using a quadrupole mass spectrometer with a side	13 2265
emann, H.B.+	energy focusing quasi-open ion source	
elman, H.	Millisecond time scale atmospheric light purses associated	16 3033
wasseur, A.C.+	activity Satellite observations of strong Balmer alpha atmospheric emissions around the magnetic	19 3881
	equator Role of gas-surface interactions in the reduction of Ogo 6 neutral particle mass	22 4651
Hin, A.E.+	spectrometer data	24 5259
mming, C.+	spectrometer data Balloon-borne spectroscopic measurement of stratospheric methane Balloon-borne spectroscopic measurement of stratospheric methane Yield and ion distribution for the barkum cloud at 31,000 kilometers, September 21, 1971	25 5745 28 6643
ring, E.R.+ riwether, J.W.+	Neutral winds above 200 km at high latitudes	
rlow, N.H.+	X ray analysis of balloon-collected particles	33 7923
gg, E.K.+	into the lower stratosphere (D) X ray analysis of balloon-collected particles erroneously considered as October influx	33 7928
- De) De X ()	into the lower stratosphere (R)	
40		
NERAL OR MISCELLANEOU		1 327
Phsenfeld, F.C.+	Laboratory investigation of the reaction $N0^+ + 0_3 + N0_2^+ + 0_2$ (L) Millisecond time scale atmospheric light pulses associated with solar and magnetospheric	
elman, H.	Millicarond time SCale atmospheric areas r	16 3033
.sch, D.W.	activity Satellite ultraviolet measurements of nitric oxide fluorescence with a diffusive trans-	25 5676
	nort model	34 7978 34 8320
ockwood, J.A.+ 4mes, T.C.+	Measurements of the atmospheric neutron leakage rate Fluorescence of CO_2 near 4.3 microns: Application to daytime limb radiance calculations	
		89

METEOROLOGY

BOUNDARY CONDITIONS AND INTERACTIONS

Relation of sea-air interface energy fluxes to convective activity in the Warsh, K.L. tropical Atlantic Ocean Spray in the atmospheric surface layer: Laboratory study Woodwell, G.M.+ Atmospheric CO2 at Brookhaven, Long Island, New York: Patterns of variation up to 125 meters Denman, K.L.+ Behavior of the mean wind, the drag coefficient, and the wave field in the open ocean Thorpe, M.R.+ Eddy correlation measurements of evaporation and sensible heat flux over Arctic sea ice Vukovich, F.M. Some observations of the variations of ozone concentrations at night in the North Carolina piedmont boundary layer Carbon monoxide in the biosphere: Sources, distribution, and concentrations Thompson, O.E. Resonant oscillations of intermediate frequency in a stratified atmosphere Schneider, S.H.+ Numerical experiments in climate stability

Diurnal cycles of the refractive index structure function coefficient

Wesely, M.L.+ Hill, R.D. Tajchman, S.J. Arya, S.P.S. Lightning induced by nuclear bursts On vertical profiles of meteorological parameters above a layer of rough vegetation Contribution of form drag on pressure ridges to the air stress on arctic ice

Daley, J.C. Wind dependence of radar sea return Banke, E.G.+ Meyer, R.E. Wind stress on arctic sea ice Note on lee waves and windward modes

CHEMICAL COMPOSITION AND CHEMICAL INTERACTIONS

Gibbs, A.G.+ Fluctuations in trace gas concentrations in the tropospherė Woodwell, G.M.+ Atmospheric CO2 at Brookhaven, Long Island, New York: Patterns of variation up to 125 meters Houtermans; J.C.+ Reservoir models and production rate variations of natural radiocarbon Horibe, Y.+ Isotope separation factor of carbon dioxide-water system and isotopic composition of atmospheric oxygen Foley, H.M.+ Vukovich, F.M. Stratospheric NO production from past nuclear explosions Some observations of the variations of ozone concentrations at night in the North Carolina piedmont boundary layer Ehhalt, D.H.+ Vertical profiles of CH4 in the troposphere and stratosphere Vertical distribution of CO in the atmosphere Goldman, A.+ Jaffe, L.S. Carbon monoxide in the biosphere: Sources, distribution, and concentrations Kummler, R.H.+ Temporal model of Tropospheric carbon-hydrogen chemistry Levy, H., II Tropospheric budgets for methane, carbon monoxide, and related species Robbins, R.C.+ Analysis of ancient atmospheres Nonurban nonmethane low molecular weight hydrocarbon concentrations related to Robinson, E.+ air mass identification Model of carbon compounds in the stratosphere and mesosphere Effect of nuclear explosions on stratospheric nitric oxide and ozone Whitten, R.C.+ Johnston, H.+ Reiter, R. Increased influx of stratopsheric air into the lower troposphere after solar Ha and X ray flares Delany, A.C.+ Tropospheric aerosol: Relative contribution of marine and continental components Tropospheric aerosol: Relative contribution of marine and continental comp Background trace gas concentrations in the central United States Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (D) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (R) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (D) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (R) Párticulate and gaseous halogens in the antarctic atmosphere Atmosphere ammonia Breeding, R.J.+ Marenco, A.+ Moore, H.E.+ Hartwig, S. Moore, H.E.+ Duce, R.A.+ McConnell, J.C. Walker, J.C.G. Atmospheric ammonia Photochemical theory for tropospheric ozone Chlorine loss from Puerto Rican and San Francisco Bay area marine aerosols

Martens, C.S.+ Martens, C. CLIMATOLOGY

Peixoto, J.P.+ Kinetic energy conversions by horizontal and vertical eddy processes from 5 years of hemispheric data

Ion ratio variations with particle size in Puerto Rican aerosols

van Loon, H.+ Storari, H.T.+ Note on the annual temperature wave in the stratosphere

Relation between the average motion of cyclones and anticyclones and their shape Hamilton, W.L.

Tidal cycles of volcanic eruptions: Fortnightly to 19 yearly periods

van Loon, H.+ Robinson, E.+

Zonal harmonic standing waves Nonurban nonmethane low molecular weight hydrocarbon concentrations related to air mass identification

Schneider, S.H.+ Numerical experiments in climate stability

Belmont, A.D.+ Buell, C.E. Semiannual variation in zonal wind from 20 to 65 kilometers at 80°N-10°S

Relation between average motion of cyclones and anticyclones and their shape (D) Relation between average motion of cyclones and anticyclones and their shape (R) Storari, H.T.

Libby, L.M. Globally stored organic carbon and radiocarbon dates

CONVECTION, TURBULENCE, AND DIFFUSION

Warsh, K.L. Relation of sea-air interface energy fluxes to convective activity in the tropical Atlantic Ocean Gibbs, A.G.

Fluctuations in trace gas concentrations in the troposphere Thorpe, M.R.+

Eddy correlation measurements of evaporation and sensible heat flux over arctic sea ice

Zimmerman, S.P.

1, D.J.	Stability analysis of a field of nonprecipitating trade cumuli	21 4472 21 4508
n, R.C.+	Numerical simulation of atmospheric electricity effects in a cloud model Model of carbon compounds in the stratosphere and mesosphere	24 5362
W.H.+ G.H.+	Wave-induced eddy diffusion coefficients in the upper atmosphere Spectral structure of tropospheric vertical temperature profiles over Cape Kennedy, Florida	25 5425 27 6218
n1, D.R.+ nn, S.J. n. A.+	Behavior of large waterdrops in shear flow On vertical profiles of meteorological parameters above a layer of rough vegetation Lead 210, hismuth 210, and polonium 210 in the atmosphere: Accurate ratio	27 6272 27 6381 30 7149
%E.+	measurement and application to aerosol residence time determination (D) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio	30 7153
g, S.	measurement and application to aerosol residence time determination (R) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio	30 7155
₿.E.+	measurement and application to aerosol residence time determination (D) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio	30 7.157
R.E.	measurement and application to aerosol residence time determination (R)	33 7917 36 8808
PCAL PHENOMENA	Numerical simulation of the generation and breaking of internal gravity waves	
KD.+	Piezoelectric theory of earthquake lightning	6 992
A.J.	Infrasonic thunder Radio mapping of 250- and 925-megahertz noise sources in clouds	12 1889 12 1944
R.B.+	Electric field intensity of the lightning return stroke	18 3523 18 3530
M.A.+ worth, A.J.	Currents in Florida lightning return strokes Differential charge transport in thunderstorm clouds (D)	18 3628
e, S.A.	Differential charge transport in thunderstorm clouds (R) Numerical simulation of atmospheric electricity effects in a cloud model	18 3630 21 4508
e, J/E.+ W.P.+	Wides tone monordings of lightning tlashes	21 4515 21 4520
e, R.E.+	Unusual lightning flash initiated by an upward-propagating leader Direct measurement of vertical potential differences in the lower atmosphere	21 4526
A.E.S.+	Production of carbon monoxide by charged particle deposition	24 5284 26 5902
L.M.+ R.D.	Production of radiocarbon in tree rings by lightning bolts Lightning induced by nuclear bursts	27 6355 27 6359
on, F.J.+	Relation of electric fields to thunderstorm days	27 6364
C.G.+	Penetration of thundercloud electric fields into the londsphold and angular	28 6623
7.T.+	Middle and subauroral latitudes Electric radiation fields of lightning return strokes in three isolated Florida	33 7911
W.L.	thunderstorms Electromagnetic radiation from severe storms in Oklahoma during April 29-30, 1970	36 8761 36 8864
G.A.+	Electrofreezing of supercooled waterdrops	
CIRCULATION	Half-yearly wave in the stratosphere (D)	9 1484
k.J. to, J.P.+	Half-yearly wave in the stratosphere (b) Kinetic energy conversions by horizontal and vertical eddy processes from 5 years of hemispheric data Relation between the average motion of cyclones and anticyclones and their shape	15 2630 15 2685
ri, H.T.+ son, O.E.	Resonant oscillations of intermediate requestions about the spheroidal earth	27 6173 27 6195 27 6373
, H.E. mt, A.D.+ i, C.E.	Exact solution for the rotation of the atmosphere at 80°N-10°S Semiannual variation in zonal wind from 20 to 65 kilometers at 80°N-10°S Relation between average motion of cyclones and anticyclones and their shape (R) Relation between average motion of cyclones and anticyclones and their shape (R)	30 7162 30 7163
ari, H.T.		
	, AND COMPRESSIONAL WAVES Critique of multilayer analyses in application to the propagation of acoustic-gravity	1 265
C.O.	waves Electric field and wind motion at the magnetic equator	4 757 7 1232
s. han, S.M.+	On the vertical movement of sporadic E (L) On the vertical movement of sporadic E (L)	10 1737
s, C.O.	Critique of multilayer analyses in application of the first application	10 1737
and, H.	waves (R) Critique of multilayer analyses in application to the propagation of acoustic-gravity waves (D)	13 2278
ncis, S.H.	waves (D) Acoustic-gravity modes and large-scale traveling ionospheric disturbances of a Acoustic-gravity modes atmosphere realistic, dissipative atmosphere	15 2630
oto, J.P.+	Vinetic energy conversions by Hollzontal and	19 3995
A.D.+	hemispheric data Predicted acoustic gravity wave enhancement during the solar eclipse of June 30, 1973 (L) (L)	21 4472
nond, D.J.	(L) Stability analysis of a field of nonprecipitating trade cumuli Sea wave origin of microbarrows and microseisms Sea wave origin of microbarrows accepting the upper atmosphere	21 4482 25 5425
n, W.L.+ sley, W.H.+	Wave-induced eddy diffusion coefficients	27 6173 27 6195
mpson, O.E. es, H.E.	Resonant oscillations of intermediate frequency in a Strating spheroidal earth Exact solution for the rotation of the atmosphere about the spheroidal earth Exact solution for the rotation of the atmosphere about the spheroidal earth Exact solution for the rotation of the Exact solution for the rotation due to the	27 6218
ht1, G.H.+	Spectral structure of troppersons Florida Possible detection of a gravity wave in the phase height of the F region due to the	31 7563
cher, E.C.	eclipse of March 7, 1970 (-)	33 7917 33 7929
er, R.E.	eclipse of market windward modes Note on lee waves and windward modes Variation of nuclear explosion generated acoustic-gravity wave forms with Variation of nuclear explosion generated acoustic-gravity wave forms with	
d, J.W. ey, J.W.+	Variation of nuclear explosion generated acoustic-gravity wave forms with	33 7931
ft, D.W.		34 8205 34 8289
ancis, S.H.	Generation of infrasonic waves by auroral electrojets Lower-atmospheric gravity modes and their relation to medium-scale traveling ionospheric disturbances	

H2O IN THE ATMOSPHERE (HUMIDITY, CLOUDS, AND PRECIPITATION)

Wake effect interactions of freely suspended large waterdrops Spray in the atmospheric surface layer: Laboratory study Oceanic rainfall off the Pacific Northwest coast Spengler, J.D.+ Elliott, W.P.+ Martens, C.S.+ Chemistry of aerosols, cloud droplets, and rain in the Puerto Rican marine atmosphere

Transfer of solar irradiance through cirrus cloud layers

Delay time as a function of velocity for the collision of freely suspended waterdrops

Radio mapping of 250- and 925-megahertz noise sources in clouds

Terminal velocity of raindrops under vertical electric stress

Differential charge transport in thunderstorm clouds (D)

Differential charge transport in thunderstorm clouds (R)

Stability analysis of a field of nonprecipitating trade cumuli

Methane concentrations in various marine environments

Numerical simulation of martine warm cumulus

Experimental determination of the condensation coefficient of water

Behavior of large waterdrops in shear flow

Charge loss mechanism of highly charged water droplets in the atmosphere atmosphere Odencrantz, F.K. Liou, K.-N. Nelson, A.R.+ Harvey, R.B.+ Dawson, G.A.+ Illingworth, A.J. Colgate, S.A. Raymond, D.J. Lamontagne, R.A.+ Takahashi, T. Takahashi, T Levine, N.E. Caldwell, D.R.+ Dawson, G.A. Dawson, G.A.+ Charge loss mechanism of highly charged water droplets in the atmosphere Electrofreezing of supercooled waterdrops

INTERACTION OF ATMOSPHERE WITH ELECTROMAGNETIC WAVES

Remsberg, E.E. Liou, K.-N. Stratospheric aerosol properties and their effects on infrared radiation Transfer of solar irradiance through cirrus cloud layers Reservoir models and production rate variations of natural radiocarbon Study of terrestrial refraction in the area of Thessaloniki Electric field intensity of the lightning return stroke Currents in Florida lightning return strokes Houtermans, J.C.+ Mavridis, L.N.+ Uman, M.A.+ Uman, M.A.+ Vertical distribution of CO in the atmosphere Goldman, A.+ Reiter, R. Increased influx of stratospheric air into the lower troposphere after solar Hα and X ray flares Wesely, M.L.+ Hill, R.D. Diurnal cycles of the refractive index structure function coefficient Lightning induced by nuclear bursts Taylor, W.L. Electromagnetic radiation from severe storms in Oklahoma during April 29-30, 1970

IONIC INTERACTIONS AND PROCESSES

Pringle, J.E.+ Numerical simulation of atmospheric electricity effects in a cloud model Green, A.E.S.+ Production of carbon monoxide by charged particle deposition Charge loss mechanism of highly charged water droplets in the atmosphere Dawson, G.A.

PARTICLES AND AEROSOLS

Spray in the atmospheric surface layer: Laboratory study Cunnold, D.M.+ Stratospheric aerosol layer detection Othemistry of aerosols, cloud droplets, and rain in the Puerto Rican marine atmosphere Stratospheric aerosol properties and their effects on infrared radiation Transfer of solar irradiance through cirrus cloud layers Martens, C.S.+ Remsberg, E.E. Liou, K.-N. Behavior of radiostrontium in rain and air after the ninth Chinese atmospheric Noyce, J.R.+ nuclear test Tropospheric aerosol: Relative contribution of marine and continental components Experimental determination of the condensation coefficient of water Delany, A.C.+ Levine, N.E. Nguyen, B.+ Variation with longitude of aerosol radioactivity over the Atlantic Ocean Variation with longitude of aerosol radioactivity over the Atlantic Ocean Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (D) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (R) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (D) Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement and application to aerosol residence time determination (R) Measurements of stratospheric aerosols by airborne laser radar Marenco, A.+ Moore, H.E.+ Hartwig, S. Moore, H.E.+ Fox, R.J.+ Measurements of stratospheric aerosols by airborne laser radar Duce, R.A.+ Farlow, N.H.+ Particulate and gaseous halogens in the antarctic atmosphere X ray analysis of balloon-collected particles erroneously considered as an October influx into the lower stratosphere (D) X ray analysis of balloon-collected particles erroneously considered as an October Bigg, E.K.+ influx into the lower stratosphere (R) In ratio variations with particle size in Puerto Rican aerosols Chlorine loss from Puerto Rican and San Francisco Bay area marine aerosols Martens, C. Martens, C.S.+

Goldman, J.L.+ Drag experiments with cylinders of varying roughness related to flow around

thunderstorm cells Dessler, A.J. Denman, K.L.+

Infrasonic thunder Behavior of the mean wind, the drag coefficient, and the wave field in the open Illingworth, A.J. Differential charge transport in thunderstorm clouds (D)

Colgate, S.A. Differential charge transport in thunderstorm clouds (R) Donn, W.L.+ Sea wave origin of microbaroms and microseisms Relation of electric fields to thunderstorm days Anderson, F.J.+ Buell, C.E.

Relation of electric fletas to thunderstorm days
Relation between average motion of cyclones and anticyclones and their shape (D)
Relation between average motion of cyclones and anticyclones and their shape (R)
Analysis of swell near the island of Aruba Storari, H.T. Wilson, W.S.+ Lin, Y.T.

Electric radiation fields of lightning return strokes in three isolated Florida Taylor, W.L.

Electromagnetic radiation from severe storms in Oklahoma during April 29-30, 1970 8940

R.H.+ .	High wave conditions observed over the North Atlantic in March 1968	36 8793
LIENTS AND TECHNIC		
c.o.	Critique of multilayer analyses in application to the propagation of acoustic-gravity waves	1 265
R.B.+	Radio mapping of 250- and 925-megahertz noise sources in clouds	12 1944 21 4515
1.P.+ hit, B.+	Direct measurement of vertical potential differences in the lower atmosphere Measurements of stratospheric aerosols by airborne laser radar	21 4526 33 7789
`J.+ . N.H.+	X ray analysis of balloon-collected particles erroneously considered as an october	33 7923
€.K.+	influx into the lower stratosphere (D) X ray analysis of balloon-collected particles erroneously considered as an October influx into the lower stratosphere (R)	33 7928
t, OR MISCELLANE	ous	
rt, J.L.+	Drag experiments with cylinders of varying roughness related to flow around	6 913
untz, F.K. J.R.+	thunderstorm cells Ice whiskers and the mosaic structure of snowflakes Behavior of radiostrontium in rain and air after the ninth Chinese atmospheric	6 958 9 1419
, K.+ : J.A.+	nuclear test Radon and thoron exhalation from the ground Atmospheric effects on ocean surface temperature sensing from the NOAA satellite	11 1804 12 1909
nrt, G.S.+	scanning radiometer Apparent 7-day period in visibility data at White Sands Missile Range, New Mexico Carbon monoxide in the biosphere: Sources, distribution, and concentrations	12 1948 24 5293
L.S. s, R.C.+	Analysis of ancient atmospheres	24 5341 27 6173
on, O.E. H.E.	Exact solution for the rotation of the atmosphere about the opening	27 6195 27 6224
., M.L.+ ~rom, B.R.	Comparison of the Minneart reflectance law and the local state of the	27 6370 27 6377
B.C.+	Variation with longitude of aerosol radioactivity over the Atlantic Ocean Variation of nuclear explosion generated acoustic-gravity wave forms with burst	33 7929
J.W.+	height and energy yield (D) Variation of nuclear explosion generated acoustic-gravity wave forms with burst height and energy yield (R)	33 7931
ON AND SEDIMENT	HYDROLOGY PATION	
		9 1462 20 4037
C.J.+ a, D.J.	Markov model for beach profile changes Water and processes of degradation in the Martian landscape	
RATION	the standard structure at the	27 6406
:, I.+	On surfactant-induced cooperative stabilization of water structure at the vapor-water interface (D)	
UIOLOGY		24 5341
ins, R.C.+	Analysis of ancient atmospheres	
NDWA'TER		3 558
ek, R.J.+ hberg, J.A.+	Theoretical study of dispersion in fractured rock aquifer Coupled salt and water flows in a groundwater basin	27 6341
MOLOGY	Natural occurrence of solitons	3 539
kins, K.+	Internal undular surges in Seneca Lake: Natural occurrence of solitons	
CIPITATION	A St. Marshar of 2000†	6 941
iott,W.P.+ onnell, J.C.	Oceanic rainfall off the Pacific Northwest coast Atmospheric ammonia	33 7812
W AND ICE	a de arres alab	2 339
4g, T.E.+ chum, R.D., Jr.	Buckling characteristics of a sloping snow slab Analysis and interpretation of air-borne multifrequency side-looking radar sea ice	3 520 6 958
.ncrantz, F.K. Chams, P.	imagery Ice whiskers and the mosaic structure of snowflakes Attenuation of swell by sea ice Failure criterion for snow	18 3552 23 4950
WERAL OR MISCELL	ANEOUS	3 558 27 6341
zzek, R.J.+ eenberg, J.A.+	Theoretical study of dispersion in a fractured rock aquifer Coupled salt and water flows in a groundwater basin	27 6341

OCEANOGRAPHY

BOUNDARY LAYER AND EXCHANGE PROCESSES

Relation of sea-air interface energy fluxes to convective activity in the tropical Warsh, K.L.

Atlantic Ocean

Spray in the atmospheric surface layer: Laboratory study

Some case studies of vertical circulations associated with oceanic fronts Rao, G.V.+

Effect of air bubble solution on air-sea gas exchange Atkinson, L.P.

Van Melle, M.J.+

Microwave radiometric observations of simulated sea surface conditions
Behavior of the mean wind, the drag coefficient, and the wave field in the open ocean
Comments on the determination of the total heat flux from the sea with a two-wavelength Denman, K.L Katsaros, K.B.+

Williams, R.T.+

radiometer system as developed by McAlister
Dissolved CO, CH_h, and H₂ in the southern ocean
Effect of multiple scattering on radiant energy transfer in waters
Eddy correlation measurements of evaporation and sensible heat flux over arctic sea ice Viskanta, R.+ Thorpe, M.R.+

Slowly varying Stokes waves and submarine longshore bars Lau, J.+

Linnenbom, V.J.+ Ocean as a source for atmospheric carbon monoxide

On surfactant-induced cooperative stabilization of water structure at the vapor-water White, I.+

interface (D)

Note on lee waves and windward modes Meyer, R.E.

CIRCULATION

Some case studies of vertical circulations associated with oceanic fronts Rao. G.V.+ Lambert, R.B., Jr.+ Tam, C.K.W. Hufford, G.L. In situ dissolved oxygen measurements in the north and west Atlantic Ocean

Dyanmics of rip currents

Warm water advection in the southern Beaufort Sea August-September 1971

Optical and hydrographic observations of the Cromwell current between 92°00'W and Zaneveld, J.R.V.+

the Galapagos Islands

Bruce, J.G. Equatorial undercurrent in the western Indian Ocean during the southwest monsoon Pak, H.+

Cromwell current on the east side of the Galapagos Islands

Patzert, W.C. Current meter data: Indication of either subtropical countercurrent or anticyclonic

island circulation

DeRycke, R.J. Sea ice motions off Antarctica in the vicinity of the eastern Ross Sea as observed by satellite

Sonu, C.J. Dynamics of rip currents (D) Tam, C.K.W. Dynamics of rip currents (R)

DISTRIBUTIONS AND WATER MASSES

Some case studies of vertical circulations associated with oceanic fronts

Neal, V.T.+ Microstructure anomalies in the Arctic Ocean Hufford, G.L. Warm water advection in the southern Beaufort Sea August-September 1971

Bowen, V.T.+ Vertical distributions of strontium 90, cesium 137, and tritium near 45° north in the

Atlantic

Carder, K.L.+ Distribution of particles in the surface waters of the eastern Gulf of Mexico:

Indicator of circulation
Distribution of ²²⁸Ra in the world ocean Kaufman, A.+

INTERNAL WAVES

Hunkins, K.+ Internal undular surges in Seneca Lake: Natural occurrence of solitons

Beckerle, J.C.+ Interference of Rossby waves by reflection from Bahama Banks and Blake-Bahama Outer

Ridge

Note on lee waves and windward modes

Meyer, R.E. Orlanski, I.+ Numerical simulation of the generation and breaking of internal gravity waves

MARINE GEOCHEMISTRY

Lambert, R.B., Jr.+ In situ dissolved oxygen measurements in the north and west Atlantic Ocean

Williams, R.T.+ Dissolved CO, CH_{4} , and H_{2} in the southern ocean Magnesium to chlorinity ratios in seawater Carpenter, J.H.+

Somayajulu, B.L.K.+ Radium, thorium, and uranium isotopes in the interstitial water from the Pacific

Ocean sediment

Brooks, J.M.+ Sources, sinks, and concentrations of light hydrocarbons in the Gulf of Mexico

Methane concentrations in various marine environments

Lamontagne, R.A.+ Linnenbom, V.J.+ Ocean as a source for atmospheric carbon monoxide

Carder, K.L.+

Distribution of particles in the surface waters of the eastern Gulf of Mexico: Indicator of circulation

La1, D.+

Dissolution and behavior of particulate biogenic matter in the ocean: Some theoretical considerations

Chlorine loss from Puerto Rican and San Francisco Bay area marine aerosols Distribution of $^{228}\mathrm{Ra}$ in the world ocean Martens, C.S.+

Ion ratio variations with particle size in Puerto Rican aerosols

Kaufman, A.+ Martens, C. Moore, W.S.+ Extraction of radium from natural waters using manganese-impregnated acrylic fibers

MARINE GEOLOGICAL PROCESSES (BEACHES, TURBIDITY CURRENTS, SEDIMENTATION)

Mei, C.C. Shoaling of spiral waves in a circular basin Sonu, C.J.+

Markov model for beach profile changes Geology and genesis of the Mexican ridges: Western Gulf of Mexico Model for formation of transverse bars Massingill, J.V.+ Barcilon, A.I.+ Swanson, R.L.+

Recent subsidence rates along the Texas and Louisiana coasts as determined from tide measurements

Silva, A.J.+ Geotechnical properties of ocean sediments recovered with giant piston corer, 1,

Gulf of Maine Slowly varying Stokes waves and submarine longshore bars Origin and development of Cascadia deep-sea channel Griggs, G.B.+

cim, S.+ , T. J.R.	Diffusivity of suspended matter in the Caribbean Sea (R)	27 6401 27 6404 32 7752
m. W.C.+	Delgada submarine fan source areas Permeability measurements on a deep-sea core (L)	32 7786 33 7834
, W.S.+ B.R.+		35 8711
C.J.	Dynamics of rip currents (D)	36 8887 36 8891
.K.W.	Dynamics of rip currents (R)	
AL PROPERTIES OF		
11e, M.J.+ G.A.+	Microwave radiometric observations of simulated sea surface conditions Atmospheric effects on ocean surface temperature sensing from the NOAA satellite scanning radiometer	6 969 12 1909
V.T.+ Did, J.R.V.+	Microstructure anomalies in the Arctic Ocean Optical and hydrographic observations of the Cromwell current between 92°00'W and the Galapagos Islands	15 2695 15 2708
**************************************	Effect of multiple scattering on radiant energy transfer in waters Heat capacity of seawater solutions from 5° to 35°C and 0.5 to 22% chlorinity Distribution of particles in the surface waters of the eastern Gulf of Mexico:	18 3538 21 4499 27 6286
[[0] [Indicator of circulation Measurements of the dielectric properties of seawater and NaCl solutions at 2.65 GHz On surfactant-induced cooperative stabilization of water structure at the vapor-	27 6301 27 6406
mily-	water interface (D) Cromwell current on the east side of the Galapagos Islands	33 7845
)- <u>18</u>		3 520
, R.D., Jr.+	Analysis and interpretation of air-borne multifrequency side-looking radar sea ice	
or, G.	imagery Sea ice observation by means of satellite	9 1427 18 3552
105, P.	Attenuation of swell by sea ice	18 3564
esen, P.+		30 7092
S.P.S.	Contribution of form drag on pressure ridges to the arr serious or any or any or any or arrangement of the contribution of form drag on pressure ridges to the arrangement of the contribution of form drag on pressure ridges to the arrangement of the contribution of form drag on pressure ridges to the arrangement of the contribution of the contri	33 7871 36 8873
ke, R.J.	Wind stress on arctic sea ice Sea ice motions off Antarctica in the vicinity of the eastern Ross Sea as observed by satellite	30 6673
FFACE WAVES, TIDES	, AND SEA LEVEL	6 977
C.C.	Shoaling of spiral waves in a circular basin On the estimation of the directional spectrum of surface gravity waves from a	9 1475
on, K.L.+	programed aircraft altimeter Behavior of the mean wind, the drag coefficient, and the wave field in the open ocean	12 1917 12 1933
2, J.A.	Mean length of runs of high waves	12 1971
on, C.M.+ onibus, P.S.+	Chiphoard observations of wave Spectra with a bow-mounted	15 2650 15 2656
: llon, A.I.+ son, R.L.+	Model for formation of transverse bars Recent subsidence rates along the Texas and Louisiana coasts as determined from tide	15 2665
	measurements	18 3552 18 3585
er, M.D.	a timetic energy enertra in a nearshore region of bare of the	21 4482
1, W.L.+	Sea wave origin of microbaroms and microbaroms language hars	21 4489 27 6395
J.+	Wedel for nonlinear fides in Small Dasins with opening	33 7823
magher, B.		33 7834
⇒on, W.S.+	Analysis of swell near the island of Aruba Scattering of surface waves by an irregular bottom	33 7861 35 8519
g, R.B. ten, E.+	Global interaction between earth and sea tides Global interaction between earth and sea tides	36 8793
der, R.H.+	High wave conditions observed over the North Holand	36 8887 36 8891
u, C.J. , C.K.W.	Dynamics of rip currents (D) Dynamics of rip currents (R)	50 0002
BULENCE AND DIFFUS	TION	12 1971
	A secretions of turbulent flow in a tidal estuary	15 2695
'don, C.M.+	Microstructure anomalies in the Article State Ontario	18 3585 27 6286
.mer, M.D.	Some kinetic energy spectra in a nearshore region of Lake Oncor. Distribution of particles in the surface waters of the eastern Gulf of Mexico:	27 0200
mder, K.L.+	Indicator of circulation int the Caribbean Sea (D)	27 6401
ttreim, S.+	Indicator of circulation Diffusivity of suspended matter int the Caribbean Sea (D) Diffusivity of suspended matter in the Caribbean Sea (R)	27 6404 33 7871
niye, T.		36 8827
nke, E.G.+ ufman, A.+	Wind stress on arctic see the world ocean Distribution of ²²⁸ Ra in the world ocean	
DERWATER SOUND	from the ocean bottom	17 3390
zdek, H.F.	Reflection of high-frequency sound at normal incidence from the ocean bottom Seismic profiler and sonobuoy measurements in the Ross Sea, Antarctica Seismic profiler and sonobuoy measurements in the Ross Sea, Antarctica	17 3448 26 6093
utz, R.+	Seismic profiler and sonobuoy measurements in the seismic profiler and sonobuoy measurements. Acoustic observations of nonexplosive submarine volcanism Acoustic observations of nonexplosive submarine volcanism Acoustic observations of nonexplosive submarine volcanism	35 8577
hnson, R.H.	Development and preliminary test of a 1000-hertz pulse compression seismic library	
	profiling system	
STRUMENTS AND TECH	NIQUES Analysis and interpretation of air-borne multifrequency side-looking radar sea ice	3 520
etchum, R.D., Jr.+	Analysis and interpretation of air-borne multifrequency state imagery	

8943

Van Melle, M.J.+	Microwave radiometric observations of simulated sea surface conditions
Wendler, G.	Sea ice observation by means of satellite
Frey, H.R.+	Limitations of conical hot platinum film probes as oceanographic flow sensors
Snyder, R.L.	On the estimation of the directional spectrum of surface gravity waves from a programed aircraft altimeter
Maul, G.A.+	Atmospheric effects on ocean surface temperature sensing from the NOAA satellite scanning radiometer
Krishen, K. Katsaros, K.B.+	Detection of oil spills using a 13.3-GHz radar scatterometer Comments on the determination of the total heat flux from the sea with a two-wavelength
DeLeonibus, P.S.+	radiometer system as developed by McAlister
Gloersen, P.+	Shipboard observations of wave spectra with a bow-mounted wave height sensor Microwave signatures of first-year and multiyear sea ice
Brooks, J.M.+	Sources, sinks, and concentrations of light hydrocarbons in the Gulf of Mexico
Daley, J.C.	Wind dependence of radar sea return
Wilson, W.S.+ Rona, P.A.+	Analysis of swell near the island of Aruba Development and preliminary test of a 1000-hertz pulse compression seismic reflection
	profiling system
Orlanski, I.+ DeRycke, R.J.	Numerical simulation of the generation and breaking of internal gravity waves Sea ice motions off Anarctica in the vicinity of the eastern Ross Sea as observed by satellite
GENERAL OR MISCELLANE	ous
Cairns, J.L.	Propagation of thermal waves through sea floor sediment
Snyder, R.L.	On the estimation of the directional spectrum of surface gravity waves from a
Swanson, R.L.+	programed aircraft altimeter Recent subsidence rates along the Texas and Louisiana coasts as determined from
	Lide measurements
Viskanta, R.+ Gallagher, B.	Effect of multiple scattering on radiant energy transfer in waters
Lal, D.+	Model for nonlinear tides in small basins with openings of restricted.depth Dissolution and behavior of particulate biogenic matter in the ocean: Some theoretical considerations
Alattica de la constanta	GEOMAGNETISM AND PALEOMAGNETISM
DYNAMO THEORIES	
Kennedy, G.C.+	Core paradox
Won, I.J.+	Oscillation of the earth's inner core and its relation to the generation of geomagnetic field
	XTERIOR SOURCES AND INTERIOR PROPERTIES (MAGNETOTELLURIC EFFECTS)
Trofimov, I.L.+	Some results of magnetotelluric research in the central Arctic (L)
Lilley, F.E.M.+	
Sastry, T.S.G.	Pally Variation of geomagnetic field at the Indian etation 1
Towle, J.N.	the period of the July 1966 proton flare Use of geomagnetic storms in magnetotelluric interpretation (L)
SPATIAL VARIATIONS (ALI	L HARMONICS AND ANOMALIES)
Harbison, R.N.+	
Benkova, N.P.+	Marine geophysical study off western India
Lilley, F.E.M.+	Residual geomagnetic field from the satellite Cosmos 49 Micropulsations recorded by an array of magnetic variometers
Hilton, H.H.+	
Hurwitz, L.+	Geomagnetic secular change, 1964-1970, from satellite F and observatory X. Y. and Z
SPATIAL VARIATIONS ATTR	RIBUTED TO SEA FLOOR SPREADING
Sclater, J.G.+	Detailed heat flow, topographic, and magnetic survey across the Galapagos spreading
Blakely, R.J.+	center at 86°W
Poehls, K.A.+	Vector magnetic data for detecting short polarity intervals in marine magnetic profiles Magnetic smooth zones in the world's oceans
Pálmason, G.	Origin and structure of the Lorland plate.
Lowrie, W.+ Atwater, T.+	
Ellwood, B.B.+	Detailed near-bottom geophysical study of the Gorda rise
TIME VARIATIONS, DIURNA	Frances epoch geomagnetic secular variation on Terceira Island, central North Atlantic
Hilton, H.H.+	Geomagnetic potential in offset dipole coordinates
Heinrichs, D.F. Papagiannis, M.D.	rationagnetic Study of recent Cascado lavas missas
Hurwitz, L.+	Torque applied by the solar wind on the tilted magnetosphere
TIME VARIATIONS, PALEOM	Geomagnetic secular change, 1964-1970, from satellite F and observatory X, Y, and Z
Dunlop, D.J.+	
	Indices of multidomain magnetic behavior in basic igneous rocks: Alternating-field
Dunlop, D.J. Beske, S.J.+	demagnetization, hysteresis, and oxide petrology Superparamagnetic and single-domain threshold sizes in magnetite Paleomagnetism of the Miocene Grotto and Snoqualmie batholiths, Central Cascades, Washington
Watt, J.P.+	Washington Measurement of Fe ³⁺ /Fe ²⁺ ratios in basaltic class I titanomagnetites using the Mössbauer
Johnson, H.P.+	effect district class I transmagnetites using the Mössbauer
Symons, D.T.A.	LOW-temperature oridation of a titangue of a
Van der Voo, R.+	Permian paleomagnetic result from the work gabbio, vancouver Island, British Columbia
Fox, P.J.+	Detween the Therian Peningula and active a first the plate boundary
8944	Geology of the oceanic crust: Magnetic properties of oceanic rocks
0544	

ay, D.W.+	Paleomagnetism of annually banded Eocene Green River sediments Geomagnetic polarity changes and the duration of volcanism in successive lava flows Paleomagnetic study of recent Cascade lavas, Three Sisters, Oregon	23 5237 26 5972 26 5983
hs, D.F. , N.D.+	Excursions and secular variation of the Brunhes epoch geomagnetic field in the Indian	26 6060
R.F.	Ocean region Stable single-domain to superparamagnetic transition during low-temperature oxidation	29 6868
, R.J.+	of oceanic basalts Vector magnetic data for detecting short polarity intervals in marine magnetic profiles Tectonic history of the Ethiopian rift as deduced by K-Ar ages and paleomagnetic	29 6977
D.J.	measurements of basaltic dikes (D) Thermoremanent magnetization in submicroscopic magnetite	29 7020 32 7602
W.+ N.D.	Magnetic properties of Deep-Sea Drilling Project basalts from the North Pacific Ocean Brunhes epoch geomagnetic secular variation on Reunion Island	32 7647 32 7763
INTS AND TECHNI	iques :	
₹ R.J.+	Vector magnetic data for detecting short polarity intervals in marine magnetic profiles	29 6977
AND MISCELLAN	eous	
4 J.V.	Geomagnetic and solar data	1 337 4 780
J.V. J.V.	Geomagnetic and solar data Geomagnetic and solar data	7 1243
J.V.	Geomagnetic and solar data	7 1244 10 1702
D.P. J.V.	Inverse theorem about the magnetic field line velocity Geomagnetic and solar data	10 1739
J.V.	Geomagnetic and solar data	13 2375 19 4005
1, J.V.	Geomagnetic and solar data On the possibility of obtaining all the information about the parameters of a conductive	
s.k./ . j.V.	ore-deposit through time-domain electromagnetic measurements Geomagnetic and solar data	23 5110 28 6832
É.	GEODESY AND GRAVITY	
CIAL SATELLITE	TECHNIQUES .	
, C.A.	Does λ_2 vary?	2 470 17 3260
, J.N.	Functional analysis, formula manipulation, and satellite geodesy Zonal gravity harmonics from long satellite arcs by a seminumeric method	17 3271
t, G.C. R.H.	Zonal gravity harmonics from long satellite along Doppler tracking between a satellite pair Direct mapping of gravity anomalies by using Doppler tracking between a satellite pair Accuracy of geoid undulation computations	29 6845 32 75 89
L MOVEMENTS		
	Geodetic determination of relative plate motion in central California	5 832 5 858
y, J.C.+ er, V.+	Measurement of fault displacement by optical parallax Measurement of fault displacement by optical parallax Surface deformation and crustal structure in the Myrdalsjökull area of south Iceland	14 2488
ason, E.	Description of geodolite distance measurements for documents	26 6001 32 7745
, J.C.+ . R.+	Dislocation theory analysis of fault creep events	32 77 10
RIC OBSERVATIO		15 2670
4s, L.N.+	Study of terrestrial refraction in the area of Thessaloniki	15 2679 20 4355
s, M.E.+ er, J.+	Martian surface coordinates Optimal design of geodetic nets, 2	26 5887
ORDER HARMONICS	OF THE GRAVITY POTENTIAL FIELD AND LOCAL GRAVITY ANOMALIES	0 1200
rsson, G.	Downward continuation of constrained potential fields	8 1288
i, W.E.+	Gravity anomalies, ultramatic intrusions, and the costs.	8 1372
ck, H.N.	Strait of Gibraltar Spherical harmonic representation of the gravitational potential of a point mass, a	11 1760
ick, n.w.	spherical cap, and a spherical rectangle spherical cap, and a spherical rectangle Ambiguity assessment of gravity interpretation for an inhomogeneous multilayered	17 3281
J.G.+	sedimentary Dasin	17 3497
, R.H.	sedimentary basin Improved models for potential coefficients and anomaly degree variances Direct mapping of gravity anomalies by using doppler tracking between a satellite pair Direct mapping of gravity anomalies by using doppler tracking between a satellite pair	29 6845 32 7589
ort, G.C.	Direct mapping of gravity anomalies of datase of Accuracy of good undulation computations	32 /369
office HADMONICS	OF THE GRAVITY POTENTIAL FIELD	
MUEK MARMONICS		2 470
E, C.A.	Does $\lambda_{2,2}$ vary? Spherical harmonic representation of the gravitational potential of a point mass, a	11 1760
ck, H.N.		17 3271
er, C.A.	Zonal gravity harmonics from long satellite arcs by a seminiment method seismic and Central North American rift system, 1, Structure of the axial zone from seismic and	23 5173
a, L.C.+	gravimetric data	
Troug OF CRAZES	Y OBSERVATIONS TO TECTONICS AND ISOSTASY	
PIONS OF GRAVII	Gravity anomalies, ultramafic intrustions, and the tectonics of the region around the	8 1372
ni, W.E.+	Strait of Gibraltar	23 4815
lips, R.J.+ n, C.	Strait of Gibraltar Mars: Crustal structure inferred from Bouguer gravity anomalies Origin of the Ninety East ridge from studies near the equator	26 6029
	LUTE MEASUREMENTS	32 7589
, R.H.	Accuracy of geoid undulation computations	32 7369
,		8

TIDES

Pollack, H.N. Mauk, F.J.+ Hamilton, W.L.

Longman tidal formulas: Resolution of horizontal components On the triggering of volcanic eruptions by earth tides Tidal cycles of volcanic eruptions: Fortnightly to 19 yearly periods Global interaction between earth and sea tides

Groten, E.+

INSTRUMENTS AND TECHNIQUES

Vacquier, V.+ Thyssen-Bornemisza, S.

Mavridis, L.N.+ Bossler, J.+ Savage, J.C.+

Measurement of fault displacement by optical parallax Vibrating-string total-field accelerometer Study of terrestrial refraction in the area of Thessaloniki Optimal design of geodetic nets, 2 Precision of geodolite distance measurements for determining fault movements

GENERAL OR MISCELLANEOUS

Spherical harmonic analysis of the earth's topography (L) Balmino, G.+

Bodvarsson, G.

Spherical narmonic analysis of the earth's topograph, (1)
Downward continuation of constrained potential fields
Hyperelliptical and other new pseudo cylindrical equal area map projections
Weighting function approach to modeling of irregular surfaces
Cartographic products from the Mariner 9 mission Tobler, W.R.

Junkins, J.L.+ Batson, R.M.

GEOCHEMISTRY

CHEMISTRY OF THE ATMOSPHERE

Gibbs, A.G.+

Fluctuations in trace gas concentrations in the troposphere Atmospheric $\rm CO_2$ at Brookhaven, Long Island, New York: Patterns of variation up to 125 Woodwell, G.M.+

Martens, C.S.+

Remsberg, E.E. Noyce, J.R.+

Chemistry of aerosols, cloud droplets, and rain in the Puerto Rican marine atmosphere Stratospheric aerosol properties and their effects on infrared radiation Behavior of radiostrontium in rain and air after the ninth Chinese atmospheric nuclear

Houtermans, J.C.+ Horibe, Y.+

Reservoir models and production rate variations of natural radiocarbon Isotope separation factor of carbon dioxide-water system and isotopic composition of atmospheric oxygen Dissolved CO, CH₄, and H₂ in the southern ocean Photoelectron excitation of the Jupiter dayglow Photoionization excitation of the CO₂⁺ $(\tilde{B}^2 \Sigma_{\text{L}}^+ + \tilde{\chi}^2 \Pi_g)$ 2890-A band (L)

Williams, R.T.+ Olivero, J.J.+ Carlson, R.W.+

Vukovich, F.M.

Some observations of the variations of ozone concentrations at night in the North Carolina piedmont boundary layer

Airglow hydroxyl doublet ratio temperatures

Harrison, A.W.+ Cumming, C.+ Ehhalt, D.H.+ National Action of CO in the atmosphere

Goldman, A.+ Green, A.E.S.+ Jaffe, L.S.

Production of carbon monoxide by charged particle deposition
Carbon monoxide in the biosphere: Sources, distribution, and concentrations
Temporal model of tropospheric carbon-hydrogen chemistry

Kummler, R.H.+

Levy, H., II

Linnenbom, V.J.+ Robbins, R.C.+

Temporal model of tropospheric carbon-hydrogen chemistry
Tropospheric budgets for methane, carbon monoxide, and related species
Ocean as a source for atmospheric carbon monoxide
Analysis of ancient atmospheres
Nonurban nonmethane low molecular weight hydrocarbon concentrations related to air mass Robinson, E.+ identification

Redutified to the CO fourth positive system by the dîssociative recombination of ${\rm CO_2}^+$ ions Incompatibility of solar EUV fluxes and incoherent scatter measurements at Arecibo Satellite ultraviolet measurements of nitric oxide fluorescence with a diffusive Gutcheck, R.A.+ Swartz, W.E.+ Rusch, D.W.

transport model

Han, R.Y.+

Rocket observation of the equatorial $0_2(^1\Delta_g)$ emission after sunset Vibrational temperature of N_2 in the E and F regions Tropospheric aerosol: Relative contribution of marine and continental components Energy deposition of protons in molecular nitrogen and applications to proton auroral Jamshidi, E.+ Delany, A.C.+ Edgar, B.C.+

Van Zandt, T.E.+ Breeding, R.J.+ Hartwig, S.

phenomena
Rate coefficient for the reaction of 0* with vibrationally excited N₂ (L)
Background trace gas concentrations in the central United States
Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement
and application to aerosol residence time determination (D)
Lead 210, bismuth 210, and polonium 210 in the atmosphere: Accurate ratio measurement
and application to aerosol residence time determination (R)
Particulate and gaseous halogens in the antarctic atmosphere
Atmospheric ammonia
Measurements of the atmospheric neutron leakage rate
Ultraviolet (1200-1900 angstrom) spectrum of Venus
Production of 0(1/S) from photodissociation of 0₂
Fluorescence of CO₂ near 4.3 microns: Application to daytime limb radiance calculations
Direct accretion of ³He and ³H from cosmic rays
Theoretical models for electron energy relaxation in the lower ionosphere Moore, H.E.+

McConnell, J.C. Lockwood, J.A.+ Rottman, G.J.+

Lawrence, G.M.+ James, T.C.+

Lupton, J.E. Theoretical models for electron energy relaxation in the lower ionosphere

Hagenbuch, K.M. Walker, J.C.G.

Photochemical theory for tropospheric ozone
Chlorine loss from Puerto Rican and San Francisco Bay area marine aerosols
Ion ratio variations with particle size in Puerto Rican aerosols Martens, C.S.+ Martens, C.

CHEMISTRY OF BODIES OF WATER

Lambert, R.B., Jr.+ In situ dissolved oxygen measurements in the north and west Atlantic Ocean Carpenter, J.H.+ Millero, F.J.+

Magnesium to chlorinity ratios in seawater
Heat capacity of seawater solutions from 5° to 35°C and 0.5 to 22% chlorinity
Sources, sinks, and concentrations of light hydrocarbons in the Gulf of Mexico
Methane concentrations in various marine environments Brooks, J.M.+

Lamontagne, R.A.+ Linnenbom, V.J.+ Ocean as a source for atmospheric carbon monoxide

Duce, R.A.+

V.T.+	Vertical distributions of strontium 90, cesium 137, and tritium near 45° north in the Atlantic	27 6277
+	Dissolution and behavior of particulate biogenic matter in the ocean: Some theoretical	30 7100
, A.+ NV.S.+	Distribution of ²²⁸ Ra in the world ocean	36 8827 36 8880
RY OF METEORITE		
.J.+	Investigation of the Canyon Diablo metallic spheroids and their relationship to the	
, N.A.+	breakup of the Canyon Diablo meteorite Spatial distribution of elements in tektites and comparable materials by charged particle	2 363
R.J.+	activation analysis Depth variation of cosmogenic noble gases in the ∿120-kg Keys chondrite	8 1245 8 1308
.M.+ G.A.	²⁰⁷ Pb- ²⁰⁶ Pb isochron and age of chondrites	17 3227 19 3913
, D.+ , T.V.+	Fission track ages and stratigraphic occurrence of Georgia tektites	23 4915 35 8507
. ,R.+	Linear island chains in the Pacific: Result of thermal plumes or gravitational anchors? Accuracy of tree ring dating of bristlecone pine for calibration of the radiocarbon	35 8634
e, V.C., Jr.+	time scale	36 8849
OF THE SOLI	D EARTH	
week A H	Analytical approach to estimating the source fock of basaltic magmas: Major elements Differentiation and the gravitational driving force for material rising at an oceanic	2 412
ruch, A.H.	ridge	5 825 5 900
. G.C.+ .in, T.R.+	Core paradox Carbonatite-kimberlite relations in the Cane Valley diatreme, San Juan County, Utah	11 1854 14 2586
., R.M. 5.P.+	Composition and temperature of the outer core Measurement of ${\rm Fe^{3+/Fe^{2+}}}$ ratios in basaltic class I titanomagnetites using the Mössbauer	17 3301
tagger, K.F.	effect Temperatures and compositions of magmas ascending along mid-ocean ridges	17 3340 17 3501
. , E.S.+	Chemistry of the earth's lower mantle Effect of low-spin Fe ²⁺ on the composition of the lower mantle	29 7005
	TERMINATIONS BY RADIOACTIVE PROCESSES)	
R.B.+	The train of crisicance of wineral ages of himschists near Seldovia, Alaska	8 1383 17 3216
G.H. .M.+	Spatial distribution of 40Ar/25Ar ages in lunar preceia 14301 207pb-206pb isochron and age of chondrites	17 3227 17 3249
S.+ or, D.+	Ages of eight recently fallen meteorites Fission track ages and stratigraphic occurrence of Georgia tektites	23 4915
A.L.	Thermoluminescence of Hawaiian basalts Tectonic history of the Ethiopian rift as deduced by K-Ar ages and paleomagnetic	29 6863
L.M.	measurements of basaltic dikes (D) Globally stored organic carbon and radiocarbon dates	29 7020 32 7667
LOGY AND PETROI	mild to be a change the outhors see	8 1274
1.J.+ P.+	Shock-induced phase change in orthoclase Strontium isotopic ratios in volcanic rocks from St. Vincent and St. Lucia, Lesser	8 1279
, R.B.+	Antilles Tectonic significance of mineral ages of blueschists near Seldovia, Alaska Carbonatite-kimberlite relations in the Cane Valley diatreme, San Juan County, Utah	8 1383 11 1854
hin, T.R.+ .re, H.G.+	Apollo 16 rocks: Petrology and classification	14 2379 17 3340
degger, K.F.	Temperatures and compositions of magmas ascending and the implications for paleomagnetism	23 4938 26 5942
ey, E.S.+	Optical absorption spectra of ruby and periodate at high shock probability of Shock-induced transition of quartz to stishovite	26 5954
e, C.+	Laboratory study of dislocation climb and diffusion in olivine Origin of the Ninety East ridge from studies near the equator	26 5961 26 6029
, C. mg, D.K.+	Fe-Mg lattice diffusion in olivine	29 6852 29 6877
e, S. on, D.R.+	Relationship of potassium content in andestite lawer mantle	29 6887 29 7005
ey, E.S.+ erman, M.J.+	Structural analysis of olivine in pariasitic motoritoes.	32 7581
y, R.M.+	interiors Electrical conductivity of serpentinized rocks to 6 kilobars	32 7614 32 7661
her, R.C. LG.+	Propagation of a coherent interface between two holmsystems of SrO at high pressure Changes of the crystal structure and the lattice parameter of SrO at high pressure	35 8470 35 8474
n, S.+	Cation distribution in Sintered titaminagnetics and alteration phase identification	35 8481 35 8495
nin, R.L.	Photostimulated oxidation of magnetite, 2, Mechanism	
RUMENTS AND TECH	INIQUES	
omou, T.E.+	a state of the sta	5 781
n, L.M.+	Compositional implications of onlistications	23 4983 26 5942
ney, E.S.+	applications Optical absorption spectra of ruby and periclase at high shock pressures Optical absorption spectra of ruby and periclase at high shock pressures He and Ne cross sections in natural Mg, Al, and Si targets and radionuclide cross sections He and Ne cross sections in natural Mg, Al, and Si targets and radionuclide cross sections	28 6428
on, J.R.+	in natural S1, Ca, II, and I	29 6863 30 7057
y, A.L. ding, R.J.+	Background trace gas concentrations in the central United States	30 7145 36 8880
son, H.G.+ e, W.S.+	Measurement of ¹⁸ 0/ ¹⁶ 0 ratio using a fast neutron reactor. Extraction of radium from natural waters using manganese-impregnated acrylic fibers	
		89

GENERAL OR MISCELLANEOUS

Behavior of radiostrontium in rain and air after the ninth Chinese atmospheric nuclear Novce, J.R.+

Megumi, K.+ Reedy, R.C.+

Radon and thoron exhalation from the ground Expected γ ray emission spectra from the lunar surface as a function of chemical

composition

composition Mesurement of 18 O/ 16 O ratio using a fast neutron reactor Photostimulated oxidation of magnetite, 1, Kinetics and alteration phase identification Photostimulated oxidation of magnetite, 2, Mechanism Jackson, H.G.+ Huguenin, R.L. Huguenin, R.L.

PHYSICAL PROPERTIES OF ROCKS

ELASTICITY, FRACTURE, AND FLOW

Theoretical calculation of the compressibility of porous media Pore pressure changes during creep events on the San Andreas fault Analysis of the dynamics of strike slip faulting Johnson, A.G.+

Achenbach, J.D.+

Walsh, J.B. Wang, H.+

Analysis of the dynamics of strike slip raulting Wave velocity and attenuation in rocks undergoing polymorphic transformations Elasticity of some mantle crystal structures, 2, Rutile GeO₂ Propagation of sound waves in a rock undergoing phase transformations Solid earth tide and observed change in the in situ seismic velocity Wang, C.-Y+ De Fazio, T.L.+ Viscous heat production in a slab (L)
Porosity dependence and mechanism of brittle fracture in sandstones Nitsan, U. Dunn, D.E.+

Chang, Z.P.+ Pressure dependence of single-crystal elastic constants and anharmonic properties

of spinel

White, J.W. Takeuchi, S.+

Invariant description of failure for an isotropic medium Elasticity of water-saturated rocks as a function of temperature and pressure Ida, Y.
Jones, B.W.
Fleischer, R.L.+
Anderson, O.L. Stress concentration and unsteady propagation of longitudinal shear cracks Seismic properties of fine rock powders in lunar conditions Mechanical erasure of tracks: Tool for lunar microstratigraphic chronology

Comments on the power law representation of Birch's law Viscosity of liquid anorthite Nonlinear and semilinear rheology of porous solids Cukierman, M.+

Biot, M.A.

Brown, R.L.+ Garg, S.K.+

Failure criterion for snow Effective stress laws for fluid-saturated porous rocks Schock, R.N.+

Goetze, C.+

Effective stress laws for fluid-saturated porous rocks

Stress-strain behavior of a granodiorite and two graywackes on compression to 20 kilobars

Laboratory study of dislocation climb and diffusion in olivine

Experimental test of Lomnitz's theory of internal friction in rocks (L)

Elastic properties of granular materials under uniaxial compaction cycles

Seismic velocities in rock subjected to axial loading up to shear fracture

Measurement of elastic velocities of MgO under shock compression to 500 kilobars

Theoretical bounds on the adiabatic compressibility of rocks

Theoretical bounds for thermal expansion, specific heat, and strain energy due to Pandit, B.I.+ Warren, N.+ Gupta, I.N. Davies, G.F.+

Walsh, J.B. Walsh, J.B.

internal stress
Dislocation theory analysis of fault creep events Nason, R.+ Fletcher, R.C. Hanson, M.E.+ Propagation of a coherent interface between two nonhydrostatically stressed crystals

A source function for a dynamic bilateral brittle shear fracture (D)

EQUATIONS OF STATE

Elasticity of some mantle crystal structures, 2, Rutile GeO2

Ahrens, T.J.+ Grady, D.E. Chang, Z.P.+

Shock-induced phase change in orthoclase
Experimental analysis of spherical wave propagation
Pressure dependence of single-crystal elastic constants and anharmonic properties of

spinel Stewart, R.M.

Composition and temperature of the outer core Liu, L.

Chemistry of the earth's lower mantle Anderson, O.L.

Comments on the power law representation of Birch's law
Stress-strain behavior of a granodiorite and two graywackes on compression to Schock, R.N.#

20 kilobars

Pandit, B.I.+ Experimental test of Lomnitz's theory of internal friction in rocks (L) Liebermann, R.C.+

Birch's law and polymorphic phase transformations Liebermann, R.C.

Davis, G.F.+ Liu, L.-G.+

Birch's law and polymorphic phase transformations
Elasticity of the clivine-spinel and clivine-A phase transformations and the
400-kilometer discontinuity of the mantle (I.)
Measurement of elastic velocities of MgO under shock compression to 500 kilobars
Changes of the crystal structure and the lattice parameter of SrO at high pressure

MAGNETIC AND ELECTRICAL PROPERTIES

Bahar, E.+ Line source over a nonuniform stratified earth Mullins, C.E.+

Line source over a nonuniform strattrict earth
Magnetic viscosity, quadrature susceptibility, and frequency dependence of
susceptibility in single-domain assemblies of magnetite and maghemite
Piezoelectric theory of earthquake lightning
Indices of multidomain magnetic behavior in basic igneous rocks: Alternating-field Hill, R.D.+

Dunlop, D.J.+

demagnetization, hysteresis, and oxide petrology Effects of atmospheric moisture on rock resistivity Alvarez, R.

Dunlop, D.J. Weeks, R.A.

Effects of atmospheric moisture on rock resistivity
Superparamagnetic and single-domain threshold sizes in magnetite
Paramagnetic resonance spectra of Ti3+, Fe3+, and Mn2+ in lunar plagioclases
Interference patterns of a horizontal electric dipole over layered dielectric media
Measurement of Fe3+ Fe2+ ratios in basaltic class I titanomagnetites using the Tsang, L.+ Watt, J.P.+

Johnson, H.P.+

Low-temperature oxidation of a titanomagnetite and the implications for paleomagnetism

Verma, S.K.

pareomagnetism

On the possibility of obtaining all the information about the parameters of a conductive ore deposit through time-domain electromagnetic measurements Geology of the oceanic crust: Magnetic properties of oceanic rocks

Lunar powder simulator under lunarlike conditions: Dielectric properties Stable single-domain to superparamagnetic transition during low-temperature Fox, P.J.+ Alvarez, R. Butler, R.F.

8948

ky, V,S.+ , D.J. , R.M.+ , W.+	Dependence of dielectric properties of rocks and their volume weight Thermoremanent magnetization in submicroscopic magnetite Electrical conductivity of serpentinized rocks to 6 kilobars Magnetic properties of Deep-Sea Drilling Project basalts from the North Pacific Ocean	29 6933 32 7602 32 7614 32 7647
, S.+	Cation distribution in sintered titanomagnetites	35 8474
CHANGES		
, E.K.+	Shock wave compression of iron-silicate garnet Analytical approach to estimating the source rock of basaltic magmas: Major elements	2 375 2 412 5 900
H +	Core paradox Elasticity of some mantle crystal structures, 2, Rutile GeO ₂	8 1262
T.J.+ CY.+	Shock-induced phase change in orthoclase Propagation of sound waves in a rock undergoing phase transformations	8 1274 8 1293
Z.P.+	Pressure dependence of single-crystal elastic constants and anharmonic properties of spinel	14 2418
n, J.D.+	Shock-induced transition of quartz to stishovite	26 5954 26 6044
n, S.C.	Shear wave attenuation and melting beneath the mid-Atlantic ridge Temperature and pressure relations of ascending primary magmas	29 6877
mann, R.C.+	Birch's law and polymorphic phase transformations Elasticity of the olivine-spinel and olivine-β phase transformations and the	29 69 26
mer, R.C.	400-kilometer discontinuity of the mantle (L) Propagation of a coherent interface between two nonhydrostatically stressed crystals	29 7015 32 7661
-G.+	Changes of the crystal structure and the lattice parameter of SrO at high pressure	35 8470
PROPERTIES		
. u.	Viscous heat production in a slab (L)	8 1395
r, H.H.+	Preliminary report on infrared radiometric measurements from the Mariner 9 spacecraft Viscosity of liquid anorthite	20 4291 23 4920
man, M.+ m, C.C.+	Contact thermal conductivity in lunar aggregates	23 5233 26 5904
K.	Periodic heating of a layer over a semi-infinite solid Temperature and pressure relations of ascending primary magmas	29 6877
J.B	Theoretical bounds for thermal expansion, specific heat, and strain energy due to internal stress	32 7637
MENTS AND TECHNI		8 1319
D.E.+	Solid earth tide and observed change in the in situ seismic velocity Porosity dependence and mechanism of brittle fracture in sandstones	14 2403
L.+	Forosity dependence and metalism of a horizontal electric dipole over layered dielectric media Finite element analysis of the residual displacements for an earthquake rupture:	17 3287
P.H.+	Source parameters for the San Fernando earthquake Techniques for the control of water fugacity and oxygen fugacity for experimentation	23 5062
cher, A.L.+	in solid media high-ressure apparatus	26 5898
e≱, R.	Lunar powder simulator under lunarlike conditions: Dielectric properties Seismic velocities in rock subjected to axial loading up to shear fracture	29 6833 29 6936
nn, S.E.+	Ultrasonic shear wave birefringence as a test of homogeneous elastic anisotropy	32 7623 33 7786
on, W.C.+	Permeability measurements on a deep-sea core (L) A sonic method for petrographic analysis	35 8463
AL OR MISCELLANEC		
3.	Optical properties of Apollo 12 moon samples	5 792
mry, B.+	A	5 810 14 2403
. D.E.+	Porosity dependence and mechanism of brittle fracture in sandstones Note on effective pressure	14 2434
. D.B.	Note on effective pressure Experimental results on combined ultraviolet-proton excitation of moon rock luminescence (L)	17 3512 23 5155
P.J.+	Geology of the oceanic crust: Compressional wave velocities of oceanic rooms	29 6893
va, S.N.+ 'ani, P.+		29 6899 29 6911
es, G.F.+	Compressional and shear wave velocities in gammar and compaction cycles Elastic properties of gramular materials under uniaxial compaction cycles Measurement of elastic velocities of MgO under shock compression to 500 kilobars Measurement of elastic velocities of MgO under shock compression to 500 kilobars	32 7596 32 7631
h, J.B.	Theoretical bounds on the adiabatic complessibility of	32 7671
ecky, P.M., Jr. son, W.C.+	Permeability measurements on a deep-sea core (h)	33 7786 35 8463
ann, S.E.+	A sonic method for petrographic analysis A source function for a dynamic bilateral brittle shear fracture (D)	35 8746
,		
	VOLCANOLOGY	
L.	Spatial distribution of elements in tektites and comparable materials by charged	
ovei, N.A.+	Spatial distribution of elements in textites and sample of the particle activation analysis particle activation analysis particle activation analysis	8 1245
nkar, P.+	Strontium isotopic ratios in volcanic rocks from Gt. Vincons and	8 1279
asewich, E.R.+	Seismic array evidence of a core boundary source for the handstand again.	8 1361 17 3340
eidegger, K.F.	volcanic chain Temperatures and compositions of magmas ascending along mid-ocean ridges	17 3340 17 3356
K. F.J.+	Temperatures and compositions of management tides On the triggering of volcanic eruptions by earth tides Tidal cycles of volcanic eruptions: Fortnightly to 19 yearly periods	17 3363 20 4049
alton, W.L.	Volcanism on Mars Volcanism of the Southern Tyrrhenian Sea and its geodynamic implications	23 5221 26 5876
peri, F.+ motte, D.L.+	Existional heating of the descending and the in successive lava flows	26 5972
ю, М.	Geomagnetic polarity changes and the distribution of the ratio of overall diemeter to rim crest diameter for	26 5993
gal, B.S.+	lunar and terrestrial craters	90

Excursions and secular variation of the Brunhes epoch geomagnetic field in the Watkins, N.D.+

Indian Ocean región Acoustic observations of nonexplosive submarine volcanism

Thermoluminescence of Hawaiian basalts Berry, A.L.

Maaløe, S.

Temperature and pressure relations of ascending primary magmas
Relationship of potassium content in andesitic lavas and depth to the seismic zone
Linear island chains in the Pacific: Result of thermal plumes or gravitational anchors? Nielson, D.R.+

Shaw, H.R.+

TECTONOPHYSICS

CONVECTION CURRENTS

Johnson, R.H.

Differentiation and the gravitational driving force for material rising at an Lachenbruch, A.H.

oceanic ridge

Viscous heat production in a slab (L)

Temperatures and compositions of magmas ascending along mid-ocean ridges Scheidegger, K.F.+

Simple mechanical model for oceanic spreading centers Depth anomalies and the bobbing motion of drifting islands Convection and the large-scale circulation of the mantle Lachenbruch, A.H. Menard, H.W Richter, F.M.

HEAT FLOW

Combs, J.+ Terrestrial heat flow determinations in the north central United States

Reiter, M.A.+ Heat flow in southwestern Virginia

MacDonald, K.C.+
Halunen, A.J., Jr.+
Watson, K. Heat flow and plate boundaries in Melanesia Heat flow in the western equatorial Pacific Ocean

Periodic heating of a layer over a semi-infinite solid

Sclater, J.G.+ Detailed heat flow, topographic, and magnetic survey across the Galapogos spreading

center at 86°W

Pearson, W.C.+ Costain, J.+ Permeability measurements on a deep-sea core (L) Heat flow at Spor Mountain, Jordan Valley, Bingham, and La Sal, Utah

Richter, F.M. Convection and the large-scale circulation of the mantle

PLATE TECTONICS

Marlow, M.S.+

Turcotte, D.L.+

Griggs, G.B.+

Malin, P.E.+

Harrison, C.G.A.+ Shaw, H.R.+

Bowin, C. Wu, F.T.+

 S_n velocities and the composition of the lithosphere in the regionalized Atlantic Differentiation and the gravitational driving force for material rising at an Lachenbruch, A.H.

oceanic ridge

Savage, J.C.+ Geodetic determination of relative plate motion in central California

Carpenter, G.+ Kanasewich, E.R.+ Crustal deformation in the Wharton basin

Seismic array evidence of a core boundary source for the Hawaiian linear volcanic chain

Bonini, W.E.+ Gravity anomalies, ultramafic intrusions, and the tectonics of the region around the Strait of Gibraltar

Forbes, R.B.+

Tectonic significance of mineral ages of blueschists near Seldovia, Alaska Nitsan, U.

MacDonald, K.C.+

Viscous heat production in a slab (L) Heat flow and plate boundaries in Melanesia

Kelleher, J.+

Possible criteria for predicting earthquake locations and their application to major plate boundaries of the Pacific and the Caribbean Lomnitz, C.

Statistical argument for the existence of a discontinuity in some subduction zones (L) Dickinson, W.R. Widths of modern arc-trench gaps proportional to past duration of igneous activity

in associated magmatic arcs

Lachenbruch, A.H. Dubois, J.+

Simple mechanical model for oceanic spreading centers Travel times of seismic waves between the New Hebrides and Fiji Islands: Zone of low velocity beneath the Fiji plateau

Seismic reflection evidence supporting underthrusting beneath the Aleutian arc near Amchitka Island (D) Roeder, D.H.

Subduction and orogeny

Bleahu, M.D.+

Neogene Carpathian arc: Continental arc displaying the features of an 'island Arc' Mechanism and spatial distribution of Chilean earthquakes with relation to subduction Stauder, W.

of the oceanic plate Klein, F.W.+

Microearthquakes on the mid-Atlantic plate boundary on the Reykjanes Peninsula in

Van der Voo, R.+ Permian paleomagnetic result from the western Pyrenees delineating the plate boundary between the Iberian Peninsula and stable europe

Menard, H.W. Depth anomalies and the bobbing motion of drifing islands Halunen, A.J., Jr.+ Stover, C.W. Barberi, F.+

Heat flow in the western equatorial Pacific Ocean

Seismicity and tectonics of the east Pacific Ocean

Volcanism of the southern Tyrrhenian Sea and its geodynamic implications

Frictional heating of the descending lithopshere

Origin of the Ninety East ridge from studies near the equator Source mechanism of February 4, 1965, Rat Island earthquake Origin and development of Cascadia deep-sea channel

Nielson, D.R.+ Sclater, J.G.+ Relationship of potassium content in andesitic lavas and depth to the seismic zone Detailed heat flow, topographic, and magnetic survey across the Galapagos spreading center at 86°W

Mohr, P.A.

Tectonic history of the Ethiopian rift as deduced by K-Ar ages and paleomagnetic measurements of basaltic dikes (D)

Stresses in the lithosphere caused by crustal thickness inhomogeneities Artyushkov, E.V. Hein, J.R.

Increasing rate of movement with time between California and the Pacific plate:

From Delgada submarine fan source areas

Geophysical reconnaissance of the western Cayman ridge

Role of fracture zones in sea floor spreading

Linear island chains in the Pacific: Result of thermal plumes or gravitational

Richter, F.M. Convection and the large-scale circulation of the mantle

8950

RIRE OF THE LITHOSPHERE

ME OF THE BITTION	· · · · · · · · · · · · · · · · · · ·	
oruch, A.H.	Differentiation and the gravitational driving force for material rising at an	5 825
ason, E.	oceanic ridge Surface deformation and crustal structure in the Myrdalsjökull area of south	
on, W.R.	Iceland Widths of modern arc-trench gaps proportional to past duration of igneous	14 2488 17 3376
oruch, A.H.	activity in associated magmatic arcs Simple mechanical model for oceanic spreading centers Seismic reflection evidence supporting underthrusting beneath the Aleutian	17 3395
	arc near Amchitka Island (D)	17 3517
, H.W.	Depth anomalies and the bobbing motion of drifing islands Frictional heating of the descending lithosphere	23 5128 26 5876
C. The MECHANIC	Origin of the Ninety East ridge from studies near the equator	26 6029
MENTS AND TECHNIC		5 050
M.W.+	Measurement of fault displacement by optical parallax Seismic reflection evidence supporting underthrusting beneath the Aleutian arc	5 858
her, R.L.+	near Amchitka Island (D) Mechanical érasure of tracks: Tool for lunar microstratigraphic chronology	17 3515 23 4841
P.H.+	Finite element analysis of the residual displacements for an earthquake rupture: Source parameters for the San Fernando earthquake	23 5062
.J.+ ℙ.A.+	Geology of the oceanic crust: Compressional wave velocities of oceanic rocks Development and preliminary test of a 1000-hertz pulse compression seismic	23 5755
	reflection profiling system	35 8577
OR MISCELLANEC	ous .	
ich, J.D.+	Analysis of the dynamics of strike slip faulting	5 866 32 7675
hkov, E.V.	Stresses in the lithosphere caused by crustal thickness inhomogeneities Thermoviscoelastic model of the earthquake source mechanism	32 7733
E	Reciprocity theorem and elastic dislocation theory for an earth model with an initial static stress field	35 8584
E	SEISMOLOGY	
AVES	Spectral ratio of short-period SoP and SoS phases in relation to the attenuation	
iry, M.A.+	in the mentle beneath the Tasman Sea and the antarctic region	2 462 5 876
O.W.	Seismic wave attenuation and magnitude relations for eastern North America Scattering of P waves under the Montana Lasa	8 1334 11 1870
ns, R.A.+ erdt, R.D.	Upper mantle structure of the western United States Energy and plane waves in linear viscoelastic media	14 2442
G.	Amplitude studies of core phases	17 3469 23 4965
C. ⇒11, B.J.+	Shear velocities at the base of the mantle from observations of Ball bob	26 6009 26 6021
mry, D.K.+	Cheer wave attenuation and melting beneath the mid-Atlantic 1108	26 6044 26 6082
T,+ I.N.	Source mechanism of February 4, 1965, Rat Island earthquake Seismic velocities in rock subjected to axial loading up to shear fracture	29 69 36
SION SEISMOLOGY		
	Local seismic phenomena in the first three seconds after underground nuclear	8 1348
er, G.	explosions	11 1809
rop, J. eggern, D.	Seismic surface waves from Amchitka Island test site events and enter	14 2467
11i, J.A.	source mechanism Spallation and the generation of surface waves by an underground explosion Topography and the Rayleigh wave generating efficiency of buried explosive	14 2475
11i, J.A.	Topography and the Rayleigh wave generating efficiency	17 3334 32 7717
t, W.R.	Seismic source energies of four explosions in a salt dome	
MENA RELATED TO	EARTHQUAKE PREDICTION	6 992
R.D.+	Piezoelectric theory of earthquake lightning Solid earth tide and observed change in the in situ seismic velocity	8 1319
zio, T.L.+ cher, J.+	Possible criteria for predicting earthquake locations	14 2547
ton, W.L.	Tidal cycles of volcanic eruptions: Forthight to be longitudinal shear cracks	17 3363 17 3418
Y. ge, J.C.+	Stress concentration and unsteady propagation to longitude of the precision of geodolite distance measurements for determining fault movements Precision of geodolite distance measurements for determining fault movements Precision of geodolite distance measurements for determining fault movements Precision of geodolite distance measurements for determining fault movements	26 6001 29 6936
a, I.N. n, D.S.+	Seismic velocities in rock subjected to the seismic velocities in	32 7709 35 8527
on, R.L.+	Search for Sidereal periodicity and Seismicity preceding moderate earthquakes in California	
VIC SOURCES (MECE	MAGNITUDE, FREQUENCY SPECTRUM, SPACE AND TIME DISTRIBUTION)	
	1 - Coulting	5 866 5 876
nbach, J.D.+	Analysis of the dynamics of strike Slip Faulting Seismic wave attenuation and magnitude relations for eastern North America Radiation and attenuation of Rayleigh waves from the southeastern Missouri Radiation and attenuation of 1,1965	5 886
hell, B.J.	earthquake of October 21, 1965 Local seismic phenomena in the first three seconds after underground nuclear	8 1348
her, G.	explosions the Carnikin explosion	11 1809
hrop, J. ner, D.J.+	explosions T phase radiation from the Cannikin explosion Focal depth and mechanism of mid-ocean ridge earthquakes	11 1818
		8

Von Seggern, D.	Seismic surface waves from Amchitka Island test site events and their relation to source mechanism
Randall, M.J. Lomnitz, C.	Spectral peaks and earthquake source dimension (L) Statistical argument for the existence of a discontinuity in some subduction zones (L)
Ida, Y. Donn, W.L.+	Stress concentration and unsteady propagation of longitudinal shear cracks Sea wave origin of microbaroms and microseisms
Stauder, W. Jungels, P.H.+	Mechanism and spatial distribution of Chilean earthquakes with relation to subduction of the oceanic plate Finite element analysis of the residual displacements for an earthquake
Klein, F.W.+	rupture: Source parameters for the San Fernando earthquake Microearthquakes on the mid-Atlantic plate boundary on the Reykjanes Peninsula
Stover, C.W.	in Iceland Seismicity and tectonics of the east Pacific Ocean
Hashi zume, M. Wu, F.T.+	Two earthquakes on Baffin Island and their tectonic implications Source mechanism of February 4, 1965, Rat Island earthquake
Pascal, G.+	Seismic velocity anomalies beneath the New Hebrides Island arc: Evidence for a detached slab in the upper mantle
Boschi, E. Boschi, E.	Body force equivalents for dislocations in viscoelastic media Thermoviscoelastic model of the earthquake source mechanism
Thatcher, W.+	Source parameters of southern California earthquakes
Boschi, E. Hanson, M.E.+	Reciprocity theorem and elastic dislocation theory for an earth model with an initial static stress field
	A source funtion for a dynamic bilateral brittle shear fracture (D)
STRONG MOTION AND SHOCK	WAVES
Grady, D.E. Boucher, G.	Experimental analysis of spherical wave propagation Local seismic phenomena in the first three seconds after underground nuclear
Viecelli, J.A.	explosions Spallation and the generation of surface waves by an underground explosion
STRUCTURE OF THE CRUST	AND UPPER MANTLE
Hart, R.S.+	\mathcal{S}_n velocities and the composition of the lithosphere in the regionalized Atlantic
Harbison, R.N.+	Marine geophysical study off western India
Carpenter, G.+ Nuttli, O.W.	Crustal deformation in the Wharton basin
Aki, K.	Seismic wave attenuation and magnitude relations for eastern North America Scattering of P waves under the Montana Lasa
Wiggins, R.A.+	Upper mantle structure of the western United States
York, J.E.+ Ludwig, W.J.+	Low-velocity zone variations in the southwestern United States Seismic reflection measurements of southwest Japan margin
Yoshii, T.+	Structure of southwest Japan margin off Shikoku
Ludwig, W.J.+	Structure of East China Sea-west Philippine Sea margin off southern Knuchy Janes
Dubois, J.+	Travel times of seismic waves between the New Hebrides and Fiji Islands: Zone of low velocity beneath the Fiji plateau
Murauchi, S.+	Structure of the Sulu Sea and the Celebes Sea
Houtz, R.+	Seismic profiler and sonohuov measurements in Poss Sea Antonotics
Asten, M.W.+ Marlow, M.S.+	Seismic reflection evidence supporting underthrusting beneath the Aleutian arc near Amchitka Island (D) Seismic reflection evidence supporting underthrusting beneath the Aleutian
Ocola, L.C.+	arc near Amchitka Island (D) Central North American rift system, 1, Structure of the axial zone from
Solomon, S.C.	Seishic and gravimetric data
Massé, R.P.	Shear wave attenuation and melting beneath the mid-Atlantic ridge Shear velocity distribution beneath the Canadian shield
Pascal, G.+	Seismic velocity anomalies beneath the New Hebrides Island
Braile, L.W.	a detached slab in the upper mantle Inversion of crustal seismic refraction and reflection data
Murauchi, S.+	New Ireland
Naini, B.R.+ Warren, D.H.+	Ganges cone: A wide angle seismic reflection and refraction study
	Crustal structure under Lasa from seismic refraction measurements INTERIOR BELOW THE UPPER MANTLE
Choudhury, M.A.+	Spectral ratio of short-period SoP and SoS phases in the
Kanasewich, E.R.+	mantle beneath the Tasman Sea and the antarctic region
Stewart, R.M.	Seismic array evidence of a core boundary source for the Hawaiian linear volcanic chain Composition and temperature of the outer core
Müller, G.	Amplitude studies of core phases
Wright, C. Mitchell, B.J.+	ATTAY Studies of P phases and the standard of
Chowdhury, D.K.+	Observations of PcP and P phases at least et al. observations of S and SeS
Flasar, F.M.+ Liebermann, R.C.	Elasticity of the olivine-spinel and olivine-spinel
Shaw, H.R.+	400-kilometer discontinuity of the mantle (L) Linear island chains in the Pacific: Result of thermal plumes or gravitational
SURFACE WAVES	
Nutti, O.W.	Seismic wave attempation and analysis
Mitchell, B.J.	Seismic wave attenuation and magnitude relations for eastern North America Radiation and attenuation of Rayleigh waves from the southeastern Missouri earthquake of October 21 1065
Weidner, D.J.+ Munasinghe, M.+	Focal depth and mechanism of mid occar with
8952	Finite difference analysis of Rayleigh wave scattering at vertical discontinuities
0002	

ern, D.	Seismic surface waves from Amchitka Island test site events and their relation to source mechanism	14 2467
, J.A. .L.+	Spallation and the generation of surface waves by an underground explosion Azimuthal dependence of Love and Rayleigh wave propagation in a slightly	14 2475
J.A.	anisotropic medium Topography and the Rayleigh wave generating efficiency of buried explosive sources	17 3321 17 3334
+ e, M.	Enhancement of long-period signals by time-varying adaptive filters Two earthquakes on Baffin Island and their tectonic implications	17 3505 26 6069
	Source mechanism of February 4, 1965, Rat Island earthquake	26 6082
MTS AND TECHNI	QUES	
T.L.+	Solid earth tide and observed change in the in situ seismic velocity Local seismic phenomena in the first three seconds after underground	8 1319
	nuclear explosions Enhancement of long-period signals by time-varying adaptive filters	8 1348 17 3505
P.H.+	Finite element analysis of the residual displacements for an earthquake rupture: Source parameters for the San Fernando earthquake	23 5062
A.+	Development and preliminary test of a 1000-hertz pulse compression seismic reflection profiling system	35 8577
el, D.+	A recording ocean bottom seismograph (L)	35 8748
OR MISCELLANE		F 010
C.C.+	Acoustic velocities and energy losses in granular aggregates Wave velocity and attenuation in rocks undergoing polymorphic transformations	5 810 8 1253 14 2442
it, R.D. the, M.+	Energy and plane waves in linear viscoelastic media Finite difference analysis of Rayleigh wave scattering at vertical discontinuities	14 2454 23 4827
V.W. 1	Seismic properties of fine rock powders in lunar conditions Geology of the oceanic crust: Compressional wave velocities of oceanic rocks	23 5155 29 6899
P.+	Compressional and shear wave velocities in granular materials to 2.3 kilouals Flastic properties of granular materials under uniaxial compaction cycles	29 6911 32 7709
D.S.+ R.L.+	Search for sidereal periodicity in earthquake occurrences Seismicity preceding moderate earthquakes in California	35 8527
450		
	INFORMATION RELATED TO GEOLOGIC TIME	
D.T.A.	Paleomagnetic zones in the Oligocene East Sooke gabbro, Vancouver Island, British Columbia	23 5100
100	Geomagnetic polarity changes and the duration of volcanism in successive lava flows	26 5972
	INFORMATION RELATED TO GEOGRAPHIC REGIONS	
A	Tectonic history of the Ethiopian rift as deduced by K-Ar ages and paleomagnetic measurements of basaltic dikes (D)	29 7020
		14 2508
W.J.+	Seismic reflection measurements of southwest Japan margin Structure of southwest Japan margin off Shikoku Structure of East China Sea-west Philippine Sea margin off southern Kyushu, Japan	14 2517 14 2526
W.J.+	Structure of East Gizing See 11	
IC OCEAN	S_n velocities and the composition of the litopsphere in the regionalized Atlantic	2 407
1.S.+	Strontium isotopic ratios in voicante rocks are	8 1279 11 1818
r, D.J.+	Focal depth and mechanism of mid-ocean riage earthquases	26 6044
n, S.C. V.T.+	Vertical distributions of Strontium 90, Cesium 137, and	27 6277 27 6377
, B.C.+	Variation with longitude of aerosol radioactivity over side (D)	29 7019 36 8793
on, G. , R.H.+	Origin and structure of the Iceland plateau and American March 1968 High wave conditions observed over the North Atlantic in March 1968	
LIA		10 1603
F.E.M.+	Micropulsations recorded by an array of magnetic variometers	
		15 2679
is, L.N.+ r Voo, R.+	Study of terrestrial refraction in the area of Thessaloniki Permian paleomagnetic result from the western Pyrenees delineating the plate Permian paleomagnetic result from the western Pyrenees delineating the plate	23 5118
	Permian paleomagnetic result flow the permian paleomagnetic result flow the boundary between the Iberian Peninsula and stable Europe	
OCEAN	to the eff western India	2 432
on, R.N.+ ter, G.+	Marine geophysical study off western India Crustal deformation in the Wharton washin Crustal deformation in the Wharton washing near the equator	5 846 26 6029
C. s, N.D.+	Origin of the Ninety East ridge from States and Secular variation of the Brunhes epoch geomagnetic field in the	26 6060
	Indian Ocean region Indian Ocean during the southwest monsoon	27 6386 32 7614
J.G. , R.M.+	Equatorial undercurrent in the western increase to 6 kilobars Electrical conductivity of serpentinized rocks to 6 kilobars	89

Naini, B.R.+ Ganges cone: A wide angle seismic reflection and refraction study

LARGE ISLANDS OR BODIES OF WATER (E.G., GREENLAND, MEDITERRANEAN SEA)

Surface deformation and curstal structure in the Myrdalsjökull area of Tryggvason, E. south Iceland

Massingill, J.V.+ Williams, R.T.+ Malin, P.E.+ Geology and genesis of the Mexican ridges: Western Gulf of Mexico Dissolved CO, $\mathrm{CH_4}$, and $\mathrm{H_2}$ in the southern ocean Geophysical reconnaissance of the western Cayman ridge

NORTH AMERICA

Combs, J.+ Terrestrial heat flow determinations in the north central United States

Reiter, M.A.+ Wiggins, R.A.+ York, J.E.+ Heat flow in southwestern Virginia

Upper mantle structure of the Western United States
Low-velocity zone variations in the southwestern United States

Paleomagnetic zones in the Oligocene East Sooke gabbro, Vancouver Island, Symons, D.T.A.

British Columbia

Ocola, L.C.+ Central North American rift system, 1, Structure of the axial zone from seismic and

gravimetric data

Strangway, D.W.+ Massé, R.P. Paleomagnetism of annually banded Eocene Green River sediments Shear velocity distribution beneath the Canadian shield Source parameters of southern California earthquakes

Thatcher, W.+ Warren, D.H.+ Crustal structure under Lasa from seismic refraction measurements

PACTETC OCEAN

MacDonald, K.C.+ Heat flow and plate boundaries in Melanesia Dubois, J.+ Travel times of seismic waves between the New Hebrides and Fiji Islands: Zone

of low velocity beneath the Fiji plateau Murauchi, S.+ Structure of the Sulu Sea and the Celebes Sea

Marlow, M.S.+ Seismic reflection evidence supporting underthrusting beneath the Aleutian arc

near Amchitka Island (D)

Halumen, A.J., Jr.+ Heat flow in the western equatorial Pacific Ocean Stover, C.W. Seismicity and tectonics of the east Pacific Ocean Johnson, R.H. Sclater, J.G.+ Acoustic observations of nonexplosive submarine volcanism

Acoustic observations of nonexplosive submarine volcanism
Detailed heat flow, topographic, and magnetic survey across the Galapogos
spreading center at 86°W
Increasing rate of movement with time between California and the Pacific
plate: From Delgada submarine fan source areas
Cromwell current on the east side of the Galapagos Islands

Hein, J.R.

Pak. H.+

Murauchi, S.+

Seismic refraction measurements on the Ontong Java plateau northeast of

New Ireland

Atwater, T.+ Detailed near-bottom geophysical study of the Gorda rise

POLAR REGIONS

Choudhury, M.A.+

Spectral ratio of short-period ScP and ScS phases in relation to the attenuation in the mantle beneath the Tasman Sea and the antarctic region Some results of magnetotelluric research in the central Arctic (L) Trofimov, I.L.+ Neal, V.T.+

Microstructure anomalies in the Arctic Ocean
Warm water advection in the southern Beaufort Sea August-September 1971
Seismic profiler and sonobuoy measurements in Ross Sea, Antarctica Hufford, G.L. Houtz, R.+ Duce, R.A.+ Particulate and gaseous halogens in the antarctic atmosphere

Banke, E.G.+ Wind stress on Arctic sea ice

GENERAL OR MISCELLANEOUS

NEW FIELDS (NOT CLASSIFIABLE UNDER OTHER HEADINGS)

Silva, A.J.+ Geotechnical properties of ocean sediments recovered with giant piston

Verma, S.K.

corer, 1, Gulf of Maine
On the possibility of obtaining all the information about the parameters of a

conductive ore deposit through time-domain electromagnetic measurements Production of radiocarbon in tree rings by lightning bolts Libby, L.M.+

Watson, K. Periodic heating of a layer over a semi-infinite solid

TECHNIQUES APPLICABLE IN THREE OR MORE FIELDS

Ness, N.F.

Note on signal enhancement for dual magnetometer systems (L) Predictive filtering and smoothing of short records by using maximum entropy Mass partition in soil cratering Empirically derived cratering formula Ulrych, T.J.+ Terlecky, P.M., Jr. White, J.W.

CORRECTIONS

Hines, C.O. Correction

Balmino, G.+ Conwall, J.M.+

Spherical harmonic analysis of the earth's topography
Electromagnetic ion-cyclotron instabilities in multicomponent magnetospheric

Dawson,

Arbitrary propagation of hm waves along the F region
Carbonatite-kimberlite relations in the Cane Valley diatreme, San Juan County, Utah
Observations of noise bands associated with the upper hybrid resonance by the McGetchin, T.R. Mosier, S.R.+

Imp 6 radio astronomy experiment Benson, R.F.+ Effect of an isotopic nonequilibrium plasma on electron temperature measurements